

Alameda County Congestion Management Agency

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185 E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

REQUEST FOR PROPOSALS To Provide

TRAFFIC DATA COLLECTION SERVICES FOR THE ALAMEDA COUNTY CONGESTION MANAGEMENT PROGRAM TRANSPORTATION NETWORK

(RFP A09-024)

Dear Consultants:

The Alameda County Congestion Management Agency (ACCMA) is issuing a Request for Proposals (RFP) for traffic data collection services. The RFP is subject to ACCMA Small Business Enterprise (SBE), Local Business Enterprise (LBE) and Disadvantaged Business Enterprise program (DBE).

Any contract to be awarded as a result of this RFP will be awarded without discrimination based on race, color, religion, sex, sexual orientation, race, religious creed, color, national origin, ancestry, denial of family and medical care leave, medical condition (cancer/ genetic characteristics) physical handicap, disability (mental or physical) including HIV and AIDS, denial of pregnancy disability leave or reasonable accommodation, marital status, age (40 and above).

To obtain a full copy of the RFP, please contact ACCMA office at (510) 836-2560 or download the document in PDF format from our website: www.accma.ca.gov. All inquiries pertaining to this RFP should be emailed to Liz Brazil, Contract Administrator, at the following email address: lbrazil@accma.ca.gov no later than 5:00 p.m., November 2, 2009. Response to all questions submitted by the November 2, 2009, deadline that may have a material impact on the proposal will be provided to all attendees of the presubmittal meeting on November 5, 2009 at 2:00 p.m. and will also be posted on the ACCMA website: www.accma.ca.gov. The subject line for questions submitted in writing should include reference to: Questions-ACCMA RFP No. A09-024

Eight (8) hard copies and one (1) electronic copy in PDF format of the proposal are due no later than 3:00 p.m. on Thursday, **November 19, 2009** at the offices of the Alameda County Congestion Management Agency, 1333 Broadway, Suite 220, Oakland, CA 94612. **Late submittals will not be accepted.** RFPs must be submitted in a sealed envelope marked:

"Traffic Data Collection Services – RFP A09-024" Alameda County Congestion Management Agency 1333 Broadway, Suite 220 Oakland, CA 94612

We look forward to receiving a proposal from your firm.

Sincerely,

Saravana Suthanthira Senior Transportation Planner

REQUEST FOR PROPOSALS

(RFP A09-024) TRAFFIC DATA COLLECTION SERVICES FOR THE ALAMEDA COUNTY CONGESTION MANAGEMENT PROGRAM TRANSPORTATION NETWORK

Issued by:

Alameda County Congestion Management Agency

October 19, 2009

RESPONSES DUE: 3:00 PM (PST) November 19, 2009 at the

Alameda County Congestion Management Agency 1333 Broadway, Suite 220 Oakland, CA 94612

The UDBE Contract goal for this contract is 3.4 percent.

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KEY RFP DATES*

Issue Date	October 19, 2009
Deadline for Submitting Questions	November 2, 2009
Pre-Submittal Meeting	November 5, 2009
Deadline for Proposal Submittal	November 19, 2009
Interviews, if necessary	Week of January 2, 2010
Consultant Selection	January 19, 2010

See Section III for more information on selection process dates

Note: The pre-submittal meeting will be held on Thursday, November 05, 2009 at 2:00 p.m. in the ACCMA Conference Room located at 1333 Broadway, Suite 220, Oakland.

REQUEST FOR PROPOSALS

(RFP A09-024) TRAFFIC DATA COLLECTION SERVICES FOR THE MEDA COUNTY CONCESTION MANAGEMENT DD

ALAMEDA COUNTY CONGESTION MANAGEMENT PROGRAM TRANSPORTATION NETWORK

INTRODUCTION

The Alameda County Congestion Management Agency (ACCMA or Agency) was created in 1991 by a joint powers agreement between Alameda County and all its cities. ACCMA's goals, duties and composition enable local governments to better address the complex problem of traffic congestion. The Agency is responsible for planning, programming, and coordinating Federal, State, and Regional funds for transportation projects within Alameda County.

ACCMA is seeking proposals from qualified consulting firms for traffic data collection to monitor the existing performance of the Congestion Management Program (CMP) roadway network. This work will include conducting speed runs on existing roadways for selected roadway segments during the a.m. and p.m. peak hours, entering travel time data collected from the speed runs and monitoring auto and transit travel time for origin-destination pairs.

I. BACKGROUND

California Government Code Section 65089 requires that each urban county in the state biennially prepare a CMP. In Alameda County, preparation of the CMP is the responsibility of the Alameda County CMA. Copies of the currently active 2007 CMP and the draft 2009 CMP are available online at www.accma.ca.gov.

The statute referenced above requires that Level of Service (LOS) standards on the CMP roadway network be established and periodically monitored. The CMA is required to issue a determination relative to the attainment of the CMP's LOS standards. Failure to attain these standards may lead to the requirement for the preparation of a deficiency plan. Failure to prepare or participate in the preparation of a deficiency plan can result in a finding of non-conformance affecting the jurisdiction(s) where the standards are not maintained.

The Alameda County CMP process requires biennial monitoring of LOS on the CMP roadway network. The CMP network, listed in Table 1 and shown in Figure 1, contains 232 miles of roadways. Of this total, 134 miles (58 percent) are interstate freeways, 71 miles (31 percent) are conventional state highways, and 27 miles (11 percent) are city/county arterials. Copies of LOS Monitoring Studies from previous years are available for review online at www.accma.ca.gov. The 2008 LOS Monitoring Report, the most recent available, can be accessed online at www.accma.ca.gov.

Table 1
Alameda County CMP Designated Roadway System

Jurisdiction	Freeway	Miles	Other State Highways	Miles	Other Arterials	Miles
Albany	I-80 I-580	0.61 0.92	SR 123 (San Pablo Ave.)	1.22	None	
Berkeley	I-80	3.14	SR 123 (San Pablo Ave.) SR 13 (Ashby/Tunnel Rd.)	2.36 3.87	University Ave. Shattuck Ave. MLk Jr Blvd. Adeline	2.04 1.84
Emeryville	I-80	1.31	SR 123 (San Pablo Ave.)	0.68	None	
Oakland	I-80 I-880 I-980 I-580 SR 24 SR 13	4.09 7.66 2.30 11.28 4.50 5.43	SR 123 (San Pablo Ave.) SR 13 (Tunnel Rd.) SR 61/260 (Tubes) SR 61 (Doolittle Dr.) SR 77 (42nd Ave.) SR 185 (E 14th St.)	1.19 0.10 0.66 2.39 0.31 3.98	MLK Jr. Blvd. Hegenberger Rd. 29th Ave./23rd Ave. -(See Park St- Alameda)	0.89 2.52 0.85
Piedmont	None		None		None	
Alameda	None		SR 61 (Doolittle Dr., Otis, Webster St) SR 61/260 (Tubes)	4.47 0.65	Atlantic Ave. Park St.	0.80 0.55
San Leandro	I-880 I-580	3.78 2.95	SR 61 (Doolittle Dr.) SR 61/112 (Davis St.) SR 185 (E 14th St.)	0.70 1.78 3.16	150th Ave. Hesperian Blvd.	0.49 0.97
Hayward	I-880 SR 92	4.23 6.36	SR 185 (Mission Blvd.) SR 238 (Mission Blvd.) SR 238 (Foothill Blvd.) SR 92 (Jackson St.)	0.85 3.29 1.50 1.58	A St. Hesperian Blvd. Tennyson Rd.	1.61 2.60 2.32
Union City	I-880	1.70	SR 238 (Mission Blvd.)	2.57	Decoto Rd.	1.76
Fremont	I-680 I-880 SR 84	6.20 11.96 3.17	SR 238 (Mission Blvd.) SR 262 (Mission Blvd.) SR 84 (Thornton, Fremont, Mowry Ave.)	5.03 1.22 10.99	Decoto Rd. Mowry Ave.	1.15 2.96
Newark	SR 84	1.99	None		None	
Pleasanton	I-580 I-680	4.65 5.26	None		None	
Livermore	1-580	4.61	SR 84	5.29	1 st Street	1.66
Dublin	I-680	1.84	None		None	
Unincorporated Areas	I-680 I-580 I-238 I-880	7.91 22.50 1.99 1.93	SR 84 (Vallecitos Rd.) SR 185 (Mission Blvd & E 14th) SR 238 (Foothill Blvd.)	7.97 2.47 0.79	Hesperian Blvd.	1.99
Totals		134 mi		71 mi		27 mi

II. SCOPE OF WORK

The selected consultant will collect traffic data on the CMP roadway network for two consecutive LOS monitoring-cycle-years, the current year (2010) and the following LOS monitoring year (2012). The consultant will also make data entry into the MS Excel spreadsheets provided by the CMA for this purpose. The CMP requires that measurement of LOS for each facility type, for the purpose of this work, the data collection, be based on average travel speed, consistent with the method described in the CMP Level of Service Standards found in Attachment A. The consultant will conduct speed runs for all freeway segments and selected arterial and ramp segments during the afternoon (4:00 p.m. to 6:00 p.m.) and morning (7:00 a.m. to 9:00 a.m.) peak periods. The consultant will also conduct travel time runs for 10 origin/destination pairs. Travel speed runs are normally conducted using "floating" cars that drive at the posted speed, or if constrained by traffic conditions, at the average speed of traffic. Starting 2008, the Global Positioning System (GPS) was used to record travel data in "floating car method" and should be used in future studies as well.

The consultant will be entirely responsible for the collection of all the data through conducting speed runs on the state highways, principal arterials and ramp segments designated on the CMP network. The details of the roadway segments and ramp segments are found in Attachment B. It should be noted that test car runs on a particular segment must span a range of days and time of day as specified in the CMP Guidelines. This means that test car runs should not be bunched on the same day of the week or taken on separate days at the same time. Runs should be conducted only on days during the 5-day work week and should not be conducted on holidays, days when school is not in session, or when major events or accidents are occurring.

The consultant will be responsible for the entry of travel time data collected from the speed runs on all freeway segments and selected arterial and ramp segments during the p.m. and a.m. peak periods. The CMA will provide programmed electronic MS Excel files to the consultant for this purpose. A sample data entry sheet is found in Attachment C. There will be one MS Excel file for each roadway. The data sheets in the MS Excel files are programmed in such a way that when data (time) is entered into the first sheet, the last sheet will show the resulting speed.

The Performance Element of the CMP requires that the CMA evaluate the performance of the transportation system within Alameda County. One method for evaluating performance is travel time. The scope of work includes providing travel time runs by both auto and transit for 10 origin/destination pairs. Data was collected and analyzed during the 2008 LOS Monitoring Study for 10 pairs as shown in Attachment D.

The study will include the specific tasks and schedule shown in Table 2. The budget should show separate line items for each of the four major tasks: developing a work plan for conducting field surveys, p.m. and a.m. peak period data collection (including freeway to freeway ramp segments) and entering collected travel time data into the spreadsheets provided by the CMA and the task of travel time runs for 10 origin/destination pairs.

¹ It is possible that the selected consultant's work on this contract will be limited to work on the 2010 LOS Monitoring task. Please refer to the discussion of Potential Changes for the year 2012 LOS Monitoring data collection on page 6 for further information.

	Table 2. 2010/2012 LOS Monitoring Data Collection Tasks					
Task	Description	Deliverable/Due Date				
1	Develop a work plan including a sample route map for conducting field surveys for speed runs on the CMP roadway network including the holiday schedule for schools and colleges in the area.	Technical Memorandum 1/ January 27 th				
2	Conduct field surveys for speed runs including the additional runs if needed during the p.m. and a.m. peak periods consistent with CMP Guidelines.	Weekly update on the routes covered and schedule for the upcoming week. February 1 st –June 15 th				
3	Enter collected travel time data into the database (Microsoft Excel) files provided by the CMA and submit electronic copy of the files GPS data as well as the spreadsheet data base.	 a. Entered Data Sheets / First working day following the week of data collection b. Technical Memorandum 2/ February 1st –June 30th 				
4	Conduct travel time surveys for 10 origin/ destination pairs for auto and transit trips	 a. Field Survey Data Sheets / First working day following the week of data collection b. Technical Memorandum 3.a February 1st –June 30th 				
	Conduct Free Flow Speed Survey on State Route 84 in Livermore Valley consistent with the HCM methodology (applicable only for 2010 Monitoring)	 a. Entered Data Sheets b. Technical Memorandum 3.b February 1st – June 30th 				

Note- Dates for the 2012 LOS Monitoring Data Collection will be finalized in January 2012. All quality control, editing and proofing is the responsibility of the selected consultant.

The consultant will prepare the following:

- 1. Technical Memorandum 1 Developing a work plan including the route maps for conducting field surveys for speed runs on the CMP roadway network. A sample schedule for travel time runs for all the road segments is found in Attachment E. It should be noted that wherever the routes are too long to cover within the peak period, they should be split into smaller groups of segments and each segment scheduled separately so that the entire route can be covered within the peak period, on different days and for varying time periods.
- 2. Technical Memorandum 2 Entering the collected travel time data into the MS Excel spreadsheets provided by the CMA and submitting the spreadsheets with entered data (in electronic form) on the first working day of the following week for the purposes of data analysis. There will be one MS Excel file for each roadway and each file will contain five sheets. The file is programmed in such a way that when the data is entered into the first sheet, it will show the speed results on the last sheet. Finally, a complete set of completed spreadsheets and GPS data along with any GIS data will be compiled into the Technical Memorandum 2 and submitted to the CMA at the completion of the data collection effort.
- 3. Technical Memorandum 3- This Technical Memorandum will compile all the field survey data sheets for the origin/destination travel time runs (3.a) along with the free flow speed survey data on the State Route 84 in Livermore Valley (3.b). For the purpose of data analysis of the OD runs,

a copy of the field survey data collected during one week will be submitted to the CMA on the first working day of the following week. Finally, a complete set of data sheets and the route maps will be compiled into the Technical Memorandum 3 and submitted to the CMA at the completion of the data collection effort.

Budget

While the ACCMA is seeking competitive proposals, the budget assigned for this project, LOS Monitoring Data Collection for the years 2010 and 2012, is \$75,000 per monitoring year. The budget includes all of the tasks listed in Table 2 for the years 2010 and 2012. Each proposal must specify a separate budget for each LOS Monitoring year.

III. <u>SELECTION PROCESS DATES AND PROJECT SCHEDULE</u>

A. SELECTION PROCESS DATES

November 2, 2009: All questions pertaining to this RFP should be emailed to Liz Brazil no later than 5:00 p.m. Monday, November 2, 2009 at the following email address: lbrazil@accma.ca.gov. Responses to all material questions received by 5:00 p.m. on this date will be provided at the pre-submittal meeting.

<u>November 5, 2009:</u> A **Pre-submittal Meeting** will be held at 2:00 p.m. at the ACCMA offices on **Thursday, November 5, 2009.**

November 19, 2009: Proposals are due no later than 3:00 p.m. on Thursday, November 19, 2009 at the offices of the Alameda County Congestion Management Agency at 1333 Broadway, Suite 220, Oakland, CA 94612.

Week of January 2, 2010: Interviews for consultant selection will be held on the Week of January 2, 2010, if necessary.

B. PROJECT SCHEDULE

The following dates are relevant to this Project:

Consultant selection	Anticipated for 19 Jan 2010
Complete Data Collection	15 June 2010
Technical Compendium (electronic) of Data Collection and Data Entry Sheets	30 June 2010
Notification to Consultant regarding 2012 LOS Monitoring tasks	31 Dec 2011

Potential Changes for the year 2012 LOS Monitoring data collection:

The specific schedule (due dates) for the 2012 LOS Monitoring data collection will be finalized by the CMA in January 2012. It is not anticipated that there will be any significant changes to the scope of work; however, some additions or modifications of segments may occur for the data collection purpose. In addition, based on the performance of the year 2010 data collection work by the consultant, some minor changes to the data collection procedure may be suggested for the year 2012. Given the potential for changes to the scope of work, the CMA reserves the

right to issue a subsequent RFP or RFQ to select a consultant for the 2012 LOS Monitoring data collection process. The consultant selected pursuant to this RFP will be notified no later than December 31, 2011, whether or not the consultant will perform the data collection for the 2012 LOS Monitoring.

IV. CONSULTANT SELECTION PROCESS:

The Consultant Selection Panel will review and evaluate the proposals based on the firm's prior experience, understanding of the services required, qualification of proposed staff, and the ability to meet the staffing requirements based on the criteria listed below. Each of the firms will be ranked by the Panel members and short-listed firms will be asked to participate in the interview, if necessary. The ACCMA will enter into negotiations with the highest ranked firm. If negotiations with this firm are ultimately unsuccessful, or if the firm declines the work offered, then negotiations will proceed with the second highest ranked firm from the proposal list, and so forth until a firm is selected. In the event of a tie, cost proposals will be opened and the lowest bid will be awarded the contract.

Each proposal will be evaluated according to the following criteria:

- Consultant's understanding of the purpose and requirements of the project
- Quality of the Work Plan
- Experience of the key personnel assigned, including relevant experience
- Qualifications of the consultant, including relevant experience with level of service monitoring projects
- Cost

V. PROPOSAL CONTENT

Your proposal should be limited to a total of 25 pages including resumes. The following information shall be provided in order to be considered complete:

1. A transmittal letter signed by an official authorized to bind the consultant. The letter shall contain a statement to the effect that the proposal is a firm offer for at least a sixty- (60) day period. The person authorized by the firm/team to negotiate a contract with ACCMA shall sign the cover letter and the letter shall include the name, title, address, email address and the telephone number of the individual to whom correspondence and other contacts should be directed during the consultant selection process. Address the cover letter as follows:

Saravana Suthanthira Senior Transportation Planner Alameda County CMA 1333 Broadway, Suite 220 Oakland, CA 94612 The consultant shall submit eight (8) hard copies and one (1) electronic CD copy in pdf format of its statement of qualifications in a sealed envelope, addressed as noted above, bearing the consultant's name and address, and clearly marked as follows:

"Proposal Submittal -ACCMA RFP No. A09-024"

- 2. General Information: Complete the attached General Information Form (Attachment G), and place in the front of the Proposal.
- 3. A *title page* showing the RFP subject, name of the proposer's firm including sub-consultants, local address, name and telephone number of contact person, and the date.
- 4. *Table of Contents*
- 5. Overview and Summary: This section should clearly convey the consultant's understanding of the nature of the work and the general approach to be taken.
- 6. Workplan and Schedule: This section should include a description of how each task of the project will be conducted, identification of deliverables, and schedule. A schedule is included in the Scope of Work. The consultant should include additional details such as study deliverables, expected sequence of tasks and important milestones. Any deviations from the schedule included in the Scopes should be highlighted and justified. The Work Plan should be in sufficient detail to demonstrate a clear understanding of the project.
- 7. Management Approach: This section should describe the consultant's approach to management of the work. If the proposal is a team effort, the distribution of work among the team members should be indicated. Projects on which the team has worked together in the past should be identified. This section should discuss the consultant's organization for this project, how the work assignments are structured, and the staffing. The staffing discussion should include the names and a brief summary of the qualifications of the key personnel. A chart showing the amount of time each key team member is devoting to the project should be included. The consultant shall describe the role of any subcontractors, with a description of the subcontractors' specific responsibilities.
- 8. Qualifications of the Personnel Assigned: This section should include the resumes of the team members assigned to the project. The resumes should highlight any experience applicable to the project.
- 9. Qualifications of the Firm: This section should provide a short description of previous projects that significantly relate to the consultant's qualifications for this particular project. The description should identify the role of key personnel assigned to conduct the study. Descriptions should highlight any experience with projects of this type. Provide a list of up to three former clients for whom the consultant firm has performed services similar to those described in this RFP, along with names and telephone numbers of persons who may be contacted as references and the consultant team member who performed the work. Similar information is required for any subcontractors included in the proposal.
- 10. *Cost Proposal:* This section should provide a detailed description of the expected expenditure of funds for the work described above, by task.

VI. SBE, LBE AND DBE PROGRAM

A. Small Business Enterprise

ACCMA has adopted a Small Business Enterprise (SBE) Policy, pursuant to which the ACCMA encourages all prime consultants to utilize qualified SBE subconsultants on ACCMA projects, ACCMA promotes the direct purchase of goods from qualified SBEs by utilizing SBE vendors when such vendors are available and the price of the goods sought is reasonable, and, for professional services contracts, ACCMA seeks the utilization of qualified SBEs when such SBEs are available. All prime consultants are required to report on SBE usage during the term of each contract, using a form provided by ACCMA.

For purposes of ACCMA's SBE Policy, an SBE shall be a "small business" within the meaning of 13 CFR Part 121 and California Government Code Section 14837. In the event that the ACCMA's SBE Policy conflicts with any Federal, State or other funding source's programs, policies, regulations or requirements, ACCMA shall make the SBE Policy consistent with said funding source's programs, policies, regulations and requirements to the extent permissible by law. ACCMA's SBE Policy is neutral as to race, ethnicity, national origin, age, sex, religion, sexual orientation and other protected classes.

B. Local Business Enterprise

ACCMA has also adopted a Local Business Enterprise (LBE) Policy, pursuant to which the ACCMA encourages all prime consultants to utilize qualified LBE subconsultants on ACCMA projects, ACCMA promotes the direct purchase of goods from qualified LBEs by utilizing LBE vendors when such vendors are available and the price of the goods sought is reasonable, and, for professional services contracts, ACCMA seeks the utilization of qualified LBEs when such LBEs are available. All prime consultants are required to report on LBE usage during the term of each contract, using a form provided by ACCMA.

C. Disadvantage Business Enterprise (DBE)

This project is subject to Title 49 CFR 26.13(b):

The consultant, sub-consultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The consultant shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the consultant to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

The Proposers shall take necessary and reasonable steps to ensure that DBEs have opportunity to participate in the contract (49 CFR 26).

To ensure there is equal participation of the DBE groups specified in 49 CFR 26.5, ACCMA specifies a goal for Underutilized Disadvantaged Business Enterprises (UDBEs). UDBE is a firm that meets the definition of DBE and is a member of one of the following groups:

1. Black Americans

- 2. Native Americans
- 3. Asian-Pacific Americans
- 4. Women

References to DBEs include UDBEs, but references to UDBEs do not include all DBEs.

Make work available to UDBEs and select work parts consistent with available UDBE subconsultant and suppliers.

Meet the UDBE goal of <u>3.4</u> percent or demonstrate that you made adequate good faith efforts to meet this goal.

It is the Bidder's responsibility to verify that the UDBE firm is certified as DBE at date of bid opening. For a list of DBEs certified by the California Unified Certification Program, go to:

http://www.dot.ca.gov/hq/bep/find_certified.htm

Only UDBE participation will count towards the UDBE goal. DBE participation will count towards the ACCMA's Annual Anticipated DBE Participation Level and the California statewide goal.

VII. GENERAL CONDITIONS

A. Award

All finalists may be required to participate in negotiations and to submit such price, technical or other revisions of their proposals as may result from negotiations. Accordingly, each initial proposal should be submitted on the most favorable terms from a price and technical perspective.

B. Workscope Modifications

The CMA reserves the right to request changes to the staffing and/or scope of services contained in any of the proposals and to enter negotiations with any of the proposers regarding their submittal.

C. Public Domain Requirement

Title to the study products including all copies and derivative works prepared by the consultant shall be in and remain with the Alameda County CMA. The consultant will assign ownership of all copies and derivative works to the Alameda County CMA with a perpetual royalty-free license to use, reproduce, sublicense, and modify such modifications, additions, and updates.

G. Levine Act

Selected consultants may be required to disclose on the record any contribution of \$250.00 or more, which they have made to a CMA Board member within the twelve-month period preceding submission of the RFP. This applies to your company, any member of your team, any agents for you or other team members and to the major shareholders of any closed corporation, which is part of your team. If you have made a contribution, which needs to be disclosed, you must provide written notice of the date, amount, and receipt of the contribution(s) in writing to the CMA Executive Director, Dennis Fay. If required, this information will need to be provided before the CMA can approve any contract.

H. Non-Discrimination

Consultants shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, sexual orientation, race, religious creed, color, national origin, ancestry, denial of family and medical care leave, medical condition (cancer/ genetic characteristics) physical handicap, disability (mental or physical) including HIV and AIDS, denial of pregnancy disability leave or reasonable accommodation, marital status, age (40 and above), in the performance of ACCMA or ACTIA contracts. Consultants and any subcontractors shall ensure that that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

Consultants shall include the non-discrimination and compliance provisions of the above clause in all subcontracts to perform work under this contract.

J. Examination of Proposal Documents

By submitting a proposal, the consultant represents that it has thoroughly examined and become familiar with the work required under this RFP, and that it is capable of performing the work identified in **Section II**, Scope of Work.

K. Addenda/Clarifications

Explanations or clarifications desired by respondents regarding the meaning or interpretation of the RFP may be requested verbally at the pre-submittal meeting or in advance of the meeting in writing. While this meeting is not mandatory, all firms intending to propose are strongly encouraged to attend. All inquiries pertaining to this RFP should be emailed to Liz Brazil, Contract Administrator, at the following email address: lbrazil@accma.ca.gov no later than 5:00 p.m., November 2, 2009. Response to all questions submitted by the November 2, 2009, deadline that may have a material impact on the proposal will be provided to all attendees of the pre-submittal meeting discussed above, and will also be posted on the ACCMA website: www.accma.ca.gov. The subject line for questions submitted in writing should include reference to: Questions - ACCMA RFP No. A09-024.

L. Withdrawal of Proposal Submittal

A Consultant may withdraw its proposal at any time before the expiration of the time for submission of proposal submittals as provided in this RFP by delivering to the Contracts Administrator a written request for withdrawal signed by, or on behalf of, the Consultant.

M. Rights of ACCMA

This RFP does not commit ACCMA to enter into a contract, nor does it obligate ACCMA to pay for any costs incurred in preparation and submission of the proposal or in anticipation of a contract.

ACCMA may investigate the qualifications of any Consultant under consideration, require confirmation of information furnished by the Consultant, and require additional evidence or qualifications to perform the Services described in this RFP.

ACCMA reserves the right to:

- 1. Reject any or all proposal submittals
- 2. Issue one or more subsequent RFQs and/or RFPs
- 3. Postpone opening for its own convenience
- 4. Remedy technical errors in the RFP process
- 5. Approve or disapprove the use of particular subconsultants
- 6. Negotiate with any, all, or none of the Consultants responding to this RFP
- 7. Award a contract to one or more Consultants
- 8. Waive informalities and irregularities in any proposal

N. Contract Type

Consultants shall be prepared to accept the terms and conditions of ACCMA's standard form contract included as **Attachment F** (Sample ACCMA Contract) hereto. If a Consultant desires to take exception to the Agreement, the Consultant shall provide the following information as a section of the Proposal identified as "Exceptions to the Agreement":

- 1. Consultant shall clearly identify each proposed change to the Agreement, including all relevant Exhibits and Attachments.
- 2. Consultant shall furnish the reasons therefore as well as specific recommendations for alternative language.

The above factors will be taken into account during contract negotiations. Substantial exceptions to the Agreement may be determined by the Agency, at its sole discretion, to be unacceptable and the Agency will proceed with negotiations with the next highest ranked firm. See Section VI Award.

O. Indemnification and Insurance Requirements

Insurance requirements for this project are set forth in **Attachment F**, Sample ACCMA Agreement for Services, ARTICLE 1 F – Indemnification and G - Insurance.

ATTACHMENT A			
DESIGNATED ROADWAY SYSTEM AND LOS MONITORING METHODOLOGY AND STANDARDS			

CHAPTER TWO

Designated Roadway System

To manage the transportation system, the CMA must first identify what is included in the system. California law requires that, at a minimum, the designated roadway system include all state highways and principal arterials. Highways or roadways designated as part of the system shall not be removed from the system.

The statutes also refer to regional transportation systems as part of the required Land Use Analysis Program.² In the 1991 CMP, it was presumed that the roadway system designated in the CMP was the highway/street component of this regional transportation system. This changed with the passage of the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. ISTEA required MTC to develop a Metropolitan Transportation System (MTS) that included both transit and highways. When the MTS was developed in 1991, it included roadways recognized as 'regionally significant' and included all interstate highways, state routes, and portions of the street and road system operated and maintained by the local jurisdictions.

MTC contracted with the CMAs in the Bay Area to help develop the MTS and to use the CMPs to link land use decisions to the MTS. The 1993 Alameda County CMP made a distinction between the CMP-network and the MTS:

- The CMP-network is used to monitor conformance with the level of service (LOS) standards; and
- The MTS³ is used for the Land Use Analysis Program.

The primary objective of designating a CMP roadway system is to monitor performance in relation to established level-of-service standards. If standards are not being maintained on a specific roadway in the

¹ California Government Code Section 65089(b)(1)(A)

² California Government Code Section 65089(b)(4)

³ In 2005, MTC updated the MTS to include Rural Major Collector streets and higher based on the Federal Functional Classification System (FFCS). The updated MTS is used by MTC for the purposes of funding and programming as well as in estimating roadway maintenance needs. The updated MTS was reviewed by ACTAC during the 2009 CMP Update to determine its usefulness and applicability to the Land Use Analysis Program. Based on ACTAC's input and discussions with MTC, it was determined that the updated MTS was not appropriate for the Land Use Analysis Program because it was too detailed for planning purposes and the previous version of the MTS would continue to be used.

designated system, actions must be taken to: address problems on that facility or plans must be developed to improve the overall LOS of the system and improve air quality.

The roadway system must be detailed enough to identify significant impacts, yet be manageable for administration. The advantage of designating a relatively detailed CMP roadway system is that it may be easier to establish a link between proposed development projects and their impact on the CMP system. However, too large a CMP system could become difficult and expensive for local agencies to monitor. The criteria established below attempt to strike this balance. The effectiveness of the system and the criteria that established it will be periodically reviewed to determine if changes are warranted.

RELATIONSHIP TO REGIONAL TRANSPORTATION PLAN

Given the statutory requirement that MTC must find the CMP consistent with the *Regional Transportation Plan* (RTP), the designated CMP system should be a subset of the MTS. This should help to ensure regional consistency among the various CMP-designated systems, particularly for facilities that cross county borders. The CMA's long-range *Countywide Transportation Plan* is the primary vehicle for coordination with the MTS. Continued coordination will be necessary to ensure consistency between Alameda County's CMP system and the MTS.

DESIGNATED CMP SYSTEM

Criteria

While the statutes require existing state highways be designated as part of the CMP system, they provide no guidance for which principal arterials should be included. After evaluating several possible methods, the 1991 CMP adopted an approach that provided for the systematic selection of principal arterials to include in the CMP-network.

The selected approach, which met MTC's expectations for a "reasonable" CMP network designation method, relies on a concept that is central to the CMP legislation—identifying a system that carries a majority of the vehicle trips countywide. Using the countywide travel model, an average daily traffic volume was identified that would produce a system of roadways carrying at least 70 percent of the vehicle miles traveled (VMT) countywide. This approach yielded an average daily traffic of roughly 30,000 vehicles per day as a minimum threshold. Additional criteria were included to refine the definition.

The following criteria are used to establish the designated CMP roadway system:

All State Highways

• If a route is relocated or removed from the State Highway System, it will be evaluated according to the principal arterial criteria to determine whether it should remain in the CMP system.

Inclusion of Principal Arterials (Note: All four criteria must be met)

- Must carry 30,000 vehicles per day (average daily traffic) for at least one mile;
- Must be a roadway with four or more lanes;
- Must be a major cross-town connector, traversing from one side of town to the opposite side; and
- Must connect at both ends to another CMP route, unless the route terminates at a major activity center.

Criteria Review

The CMA Board reviewed the criteria for adding roadways in April 2009 and found that it continued to meet the original criteria of capturing a significant amount of the system carrying the highest volume of travel. It was recommended that no changes be made to the criteria at this time, but that the criteria be reevaluated in the 2011 CMP Update in light of changing land use and traffic patterns that have occurred over the last 20 years to determine if a reasonable percentage of roadways continue to meet the criteria. In the 1991 CMP, the Countywide Travel Demand Model was used to identify an average daily traffic (ADT) volume that would produce a system of roadways carrying at least 70 percentage of the vehicle miles travelled (VMT) countywide. This approach yielded the criteria used today. It was recommended that that this evaluation be redone for the 2011 CMP to help identify additional potential routes if appropriate.

The criteria for adding roadways (criteria for inclusion of Principal Arterials) to the CMP-network will continue to be reviewed every four years, with the next review occurring in the 2013CMP Update. Further, in view of the liability to remediate any LOS F condition for which no funding is available, until any additional funding or new financial sources become available, the current system of the jurisdictions proposing addition of new segments on a voluntary basis will continue. However, for the 2011 CMP, a reevaluation of the criteria will also be done as described above.

The following procedure and schedule for adding roadways to the CMP-designated system and reviewing criteria was approved by the CMA Board. Criteria for adding roadways will be reviewed in one CMP update and the adopted criteria will be applied to identify potential routes in the subsequent CMP update. For identifying potential routes, the jurisdictions will review their roadway systems for routes that may meet the Criteria for Inclusion of Principal Arterials. For potential routes, each jurisdiction will conduct 24-hour traffic counts for a period including a Tuesday through Thursday of a typical week. Traffic counts should be taken around the first week in April 2011. Each jurisdiction must submit potential CMP-designated routes to the CMA by end of June 2011. The schedule is shown in Table 2.

The CMP System

Table 2 shows the schedule for review and update of designated routes on the CMP system. Table 3 lists the designated CMP system, including all state highways and principal arterials that satisfy the above

criteria. The entire CMP-designated system is illustrated in Figure 1 and detailed maps for each area within the county are shown in Figures 2 through 5. Characteristics of the CMP designated system determined in 1991 are as follows:

- It carried 72 percent of the countywide vehicle miles traveled (VMT).
- It contains 232 miles of roadways, of which: 134 miles (58 percent) are interstate freeways, 71 miles (31 percent) are state highways and 27 miles (11 percent) are city/county arterials.

The Metropolitan Transportation System designated by MTC is also shown in Figure 2 through Figure 5. The Metropolitan Transportation System transit corridors are shown in Figure 6 and Figure 7. The system includes the entire CMP-designated roadway system together with major arterials, transit services, rail, maritime ports, airports and transfer hubs that are critical to the region's movement of people and freight.

Changes to the CMP-network since 1991

The following changes were made to the CMP network after its initial adoption by the CMA Board in 1991:

- In 2003, Caltrans realigned State Route 84 (SR 84) in Livermore from 1st Street to Isabel Avenue-Airway Boulevard. Consequently, the new alignment was added to the CMP-network in 2005. The former SR 84 alignment along 1st Street in Livermore was evaluated to see whether it meets the Principal Arterial criteria to be retained on the CMP network. Based on the results of the analysis, the 2.2 miles segment between Inman Street and I-580 was retained on the CMP-network.
- In 2007, the City of Oakland conducted 24-hour traffic counts on Hegenberger Road between I-880 and Doolittle Drive. The traffic counts collected and other characteristics of the roadway met all the Principal Arterial criteria for inclusion in the CMP-network. Accordingly, a 1.7 mile segment of Hegenberger Road between I-880 and Doolittle Drive was added to the network.

Local Government Responsibilities

To be in conformance with the CMP, local jurisdictions must submit a list of potential CMP-designated routes based on 24-hour counts by spring 2011.

Table 2—Schedule for CMP-Designated System

TASK	WHO	WHEN
Re-evaluate Criteria for Adding Roadways	ACTAC/Board	June 2010
Identify Potential Routes	Jurisdictions	January 2011
Review Routes	ACTAC/Board	February 2011
Collect Traffic Data	Jurisdictions	March/April 2011
Review Data	ACTAC/Board	May 2011
Select CMP Designated Routes	ACTAC/Board	June 2011
Incorporate Routes in 2011 CMP	ACTAC/Board	June 2011
Review & Update Criteria for adding roadways	Jurisdictions/ACTAC/Board	June 2013

Note: Criteria for adding roadways will be reviewed in one CMP update and the adopted criteria will be applied to identify potential routes in the subsequent CMP update.

Table 3—CMP-Designated System, Route List

CITIES OF ALBANY AND BERKELEY

Route	From	То	Criteria ^{4 5}
SR-123 (San Pablo)	Contra Costa County line	Emeryville city limit	State Route
University Ave.	I-80	Milvia St.	Satisfies criteria
University Ave.	Milvia St.	Shattuck Ave.	Connectivity ⁶
Shattuck Ave.	University Ave.	Haste St.	Connectivity
Shattuck Ave.	Haste St.	Derby St.	Satisfies criteria
Adeline St.	Derby St.	MLK Jr. Way	Satisfies criteria
MLK Jr. Way	Adeline St.	Oakland city limit	Satisfies criteria
SR-13 (Ashby Ave)	I-80	Tunnel Rd.	State Route
SR-13 (Tunnel Rd)	Ashby Ave.	Oakland city limit	State Route
I-80/I-580	University	Central	State Route

⁴ Principal Arteiral criteria Applied: a) must carry 30,000 average daily traffic for at least one mile; b) must be a 4- or more lane roadway; c) must be a major cross-town arterial, traversing from one side of town to the opposite side; and d) must connect to another CMP route or major activity center.

⁵ State highways and interstate freeways are included in their entirety within each jurisdiction and include all mileage within Alameda County.

^{6 &}quot;Connectivity" indicates that the segment has been included in the designated system to provide continuity and avoid stub ends.

CITY OF ALAMEDA

Route	From	То	Criteria
SR-61 (Doolittle Dr.)	Oakland city limit	Fernside Blvd.	State Route
SR-61 (Otis Dr.)	Fernside Blvd.	SR-61 (Broadway)	State Route
SR-61 (Broadway)	Otis Dr.	SR-61 (Encinal Ave.)	State Route
SR-61 (Encinal Ave.)	SR-61 (Broadway)	Sherman St.	State Route
SR-61 (Central Ave.)	Sherman St.	SR-260 (Webster St.)	State Route
SR-260 (Webster St.)	SR-61 (Central Ave.)	Posey/Webster tubes	State Route
SR-260 (Posey/			
Webster tubes)	SR-260 (Webster St.)	Oakland city limit	State Route
Atlantic Ave.	SR-260 (Webster St.)	Poggi St.	Satisfies criteria
Atlantic Ave.	Poggi St.	Main St.	Connectivity
Park St.	Oakland city limit	Central Ave.	Satisfies criteria
Park St.	Central Ave.	SR-61 (Encinal Ave.)	Connectivity

CITIES OF EMERYVILLE, OAKLAND AND PIEDMONT

Route	From	То	Criteria
MLK Jr. Way	Berkeley city limit	SR-24	Satisfies criteria
SR-123 (San Pablo)	Berkeley city limit	35th St.	State Route
SR-13 (Tunnel Rd.)	Berkeley city limit	SR-24	State Route
SR-260 (Posey/ Webster tubes)	Alameda city limit	I-880	Satisfies criteria
23rd/29th Ave.	Alameda city limit	I-880	Satisfies criteria
SR-77 (42nd Ave.)	I-880	SR-185 (E. 14th St.)	State Route
SR-185 (E. 14th St.)	SR-77 (42nd Ave.)	San Leandro city limit	State Route
Hegenberger Rd.	I-880	Doolittle Dr.	Satisfies Criteria ⁷
Hegenberger Rd.	I-880	Hawley St.	Connectivity
Hegenberger Rd.	Hawley St.	SR-185 (E. 14th St.)	Satisfies criteria
SR-61 (Doolittle Dr.)	Alameda city limit	San Leandro city limit	State Route
SR-13	SR-24	I-580	State Route
SR-24	I-980	Contra Costa County line	State Route
I-80 ⁸	SF County Line	University Ave.	State Route
I-580	I-80	MacArthur Blvd.	State Route
I-880	I-980	Hegenberger Rd.	State Route
I-980	I-880	SR-24	State Route

 $^{^{7}}$ Found to meet Principal Arterial criteria in 2007.

⁸ A portion of this route to the Emeryville border includes the city of Berkeley.

CITY OF SAN LEANDRO

Route	From	То	Criteria
SR-61 (Doolittle Dr.)	Oakland city limit	SR-61/112 (Davis St.)	State Route
SR-61/112 (Davis St.)	SR-61 (Doolittle Dr.)	SR-185 (E. 14th St.)	State Route
SR-185 (E. 14th St.)	Oakland city limit	Ashland (unincorp.)	State Route
150th Ave.	Hesperian Blvd.	I-580	Satisfies criteria
Hesperian Blvd.	SR-185 (E. 14th St.)	San Lorenzo (unincorp.)	Satisfies criteria
I-880 ⁹	Hegenberger Ave.	I-238	State Route
I-580 ¹⁰	MacArthur Blvd.	I-238	State Route

SAN LORENZO, CASTRO VALLEY, ASHLAND (unincorporated areas)

Route	From	То	Criteria
SR-185 (Mission Blvd.)	San Leandro city limit	Hayward city limit	State Route
Hesperian Blvd.	San Leandro city limit	Hayward city limit	Satisfies criteria
SR-238 (Foothill Blvd.)	I-238	Hayward city limit	State Route
I-880 ¹¹	I-238	A Street	State Route
I-238 ¹²	I-880	I-580	State Route
I-580 ¹³	I-238	I-680	State Route

⁹ A portion of this route to the San Leandro border includes the city of Oakland.

¹⁰ A portion of this route to the San Leandro border includes the cities of Hayward and Oakland.

¹¹ A portion of this route in the county includes the city of Hayward.

¹² A portion of this route in the county includes the city of San Leandro.

¹³ A portion of this route in the county includes the city of Pleasanton.

CITY OF HAYWARD

Route	From	То	Criteria
SR-185 (Mission Blvd.)	Ashland (unincorporated)	SR-92 (Jackson St.)	State Route
SR-92 (Jackson St.)	I-880	SR-185 (Mission Blvd.)	State Route
SR-238 (Foothill Blvd.)	Ashland (unincorporated)	SR-185 (Mission Blvd.)	State Route
SR-238 (Mission Blvd.)	SR-92 (Jackson St.)	Union City city limit	State Route
A Street	I-880	SR-238 (Foothill Blvd.)	Satisfies criteria
Hesperian Blvd.	San Lorenzo (unincorporated)Tennyson Rd.		Satisfies criteria
Tennyson Rd.	Hesperian Blvd.	SR-238 (Mission Blvd.)	Satisfies criteria
SR-92	San Mateo County line	I-880	State Route
I-880 ¹⁴	A Street	Alvarado-Niles	State Route

CITIES OF UNION CITY, FREMONT AND NEWARK

Route	From	То	Criteria
SR-238 (Mission Blvd.)	Hayward city limit	I-680	State Route
Decoto Rd.	I-880	SR-238 (Mission Blvd.)	Satisfies criteria
Mowry Ave.	I-880	SR-84 (Peralta Blvd.)	Satisfies criteria
SR-262 (Mission Blvd.)	I-880	I-680	State Route
SR-84 (Thornton Ave.)	I-880	Fremont Blvd.	State Route
SR-84 (Fremont Blvd.)	SR-84 (Thornton Ave)	SR-84 (Peralta Blvd.)	State Route
SR-84 (Peralta Blvd.)	SR-84 (Fremont Blvd.)	SR-84 (Mowry Ave.)	State Route
SR-84 (Mowry Ave.)	SR-84 (Peralta Blvd.)	SR-238 (Mission Blvd.)	State Route
SR-84 (Niles Canyon)	SR-238 (Mission Blvd.)	I-680	State Route
SR-84	San Mateo County line	I-880	State Route
I-880	Alvarado-Niles	Dixon Landing	State Route
I-680	Scott Creek	SR-238	State Route

¹⁴ A portion of this route to the Hayward border includes the city of Union City.

CITIES OF PLEASANTON, DUBLIN, LIVERMORE AND UNINCORPORATED AREAS

Route	From	То	Criteria
SR-84 (Vallecitos) ¹⁵	I-680	SR-84 (Isabel Ave)	State Route
SR-84 (Isabel Ave.) 12	SR-84 (Vallecitos Rd.)	SR-84 (Kitty Hawk Rd.)	State Route
SR-84 (Kitty Hawk Rd.) ¹	² SR-84 (Isabel Ave.)	SR-84 (Airway Blvd.)	State Route
SR-84 (Airway Blvd.) ¹²	SR-84 (Kitty Hawk Rd.)	I-580	State Route
1st Street ¹⁶	Inman St.	I-580	Satisfies criteria
I-580	I-680	I-205	State Route
I-680	SR-238	Alcosta Blvd.	State Route

¹⁵ New alignment of SR-84 by Caltrans in 2003.

¹⁶ A portion of old SR-84 alignment found to meet the Principal Arterial criteria.

Figure 1— Designated Countywide System Map

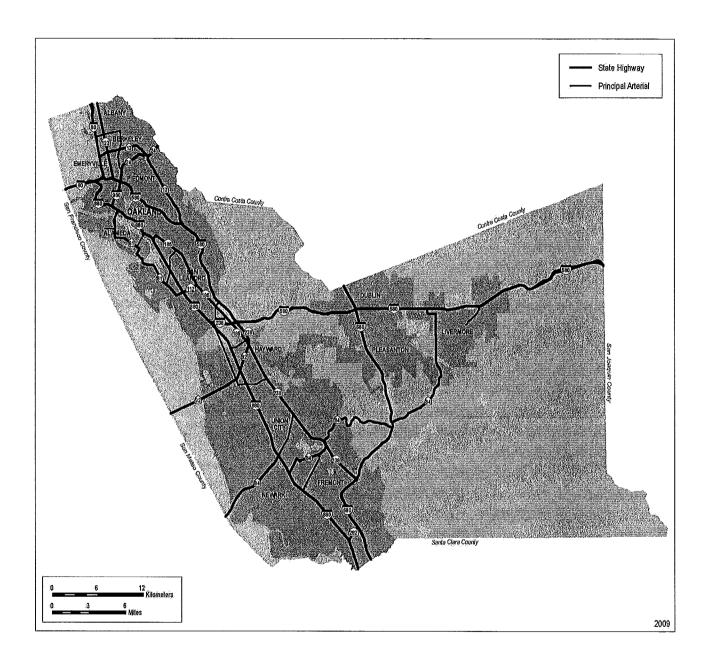


Figure 2—Designated System Map for Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont

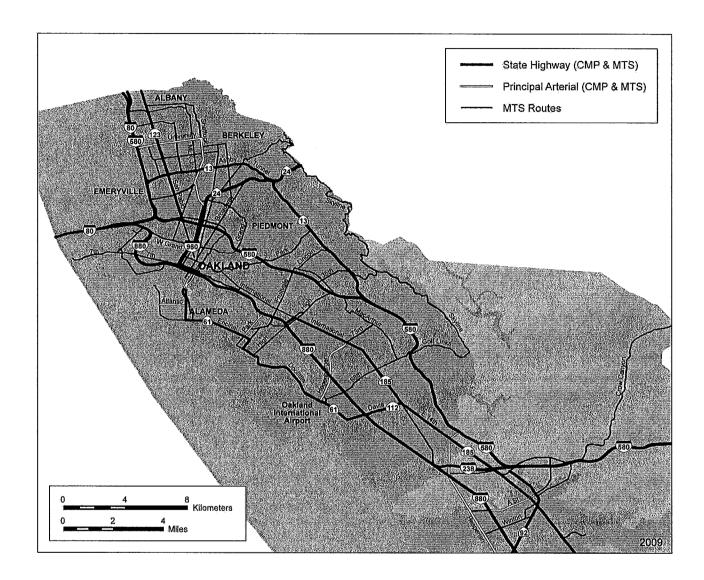


Figure 3—Designated System Map for Castro Valley, Hayward, San Leandro and San Lorenzo

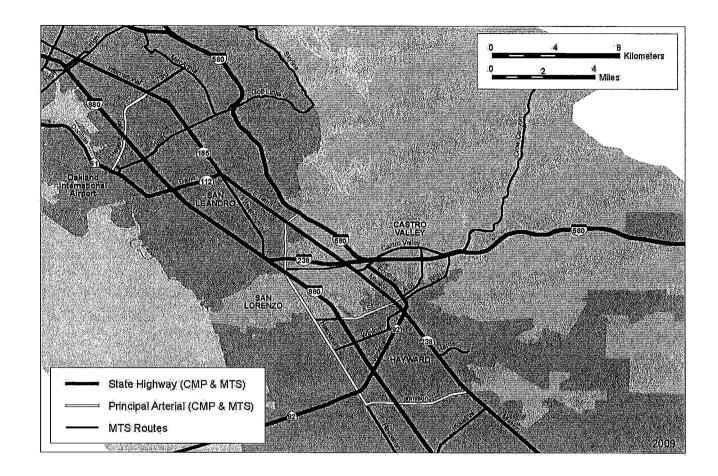


Figure 4—Designated System Map for Fremont, Newark and Union City

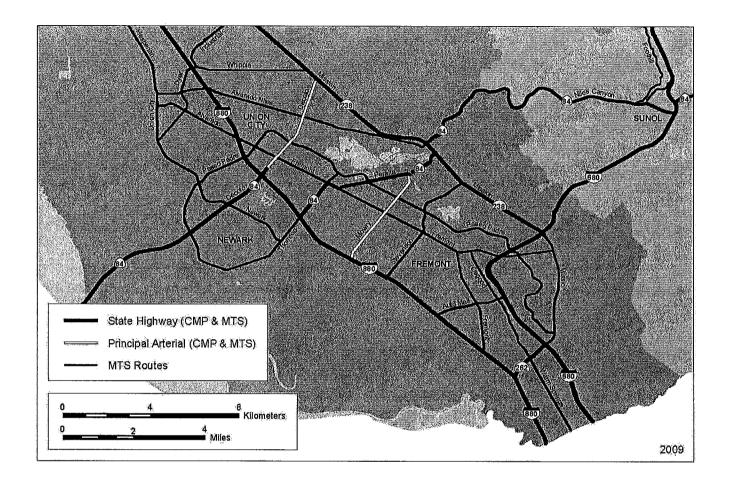
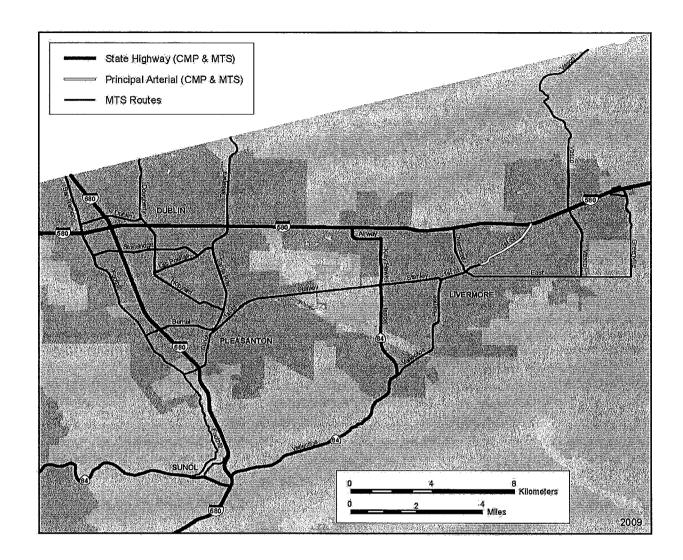


Figure 5 — Designated System Map for Dublin, Livermore and Pleasanton



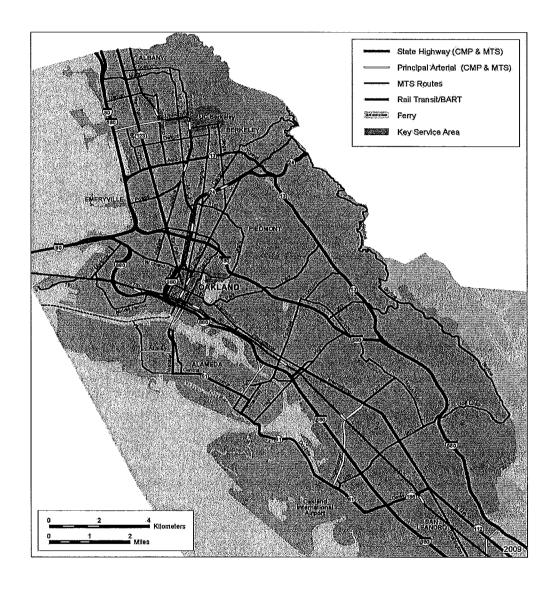
Principal Arterial

Figure 6 — Metropolitan Transportation System, Transit Corridors of Alameda County

The following are the operators that provide transit services in Alameda County:

- 1. AC Transit
- 2. Bay Area Rapid Transit (BART)
- 3. LAVTA
- 4. Union City Transit
- 5. ACE Commuter Rail
- 6. Capital Corridor
- 7. Alameda-Oakland Ferry Service
- 8. Harbor Bay Ferry Service

Figure 7 — Metropolitan Transportation System, Transit Corridors of Northern Alameda County Detail



CHAPTER THREE

Level of Service Standards

State law requires that level-of-service standards be established as part of the Congestion Management Program (CMP) process. ¹⁷ Level of service must be measured by methods described in one of the following documents: Transportation Research Board Circular 212, the latest version of the Transportation Research Board's Highway Capacity Manual (HCM), or a uniform methodology adopted by the CMA that is consistent with the HCM. The legislation leaves the choice of level-of-service measurement methodology to the CMA.

LOS definitions generally describe traffic conditions in terms of speed and travel time, volume and capacity, freedom to maneuver, traffic interruptions, comfort and convenience and safety. LOS is represented by letter designations, ranging from A to F. LOS A representing the best operating conditions and LOS F the worst. See Appendix C for graphic representation of LOS.

The purpose of setting LOS standards for the CMP system is to provide a quantitative tool to analyze the effects of land use changes and to the system's performance (i.e., congestion). If the actual system performance falls below the standard (i.e., congestion worsens to LOS F), actions must be taken to improve LOS. Each year, the CMA is required to determine how well local governments meet CMP standards, including how well they meet the LOS standards.

Each year since 1991, the CMA has contracted with a consultant to perform the necessary LOS monitoring for the CMP-network. In 1998, the Board adopted a policy that the LOS monitoring will be done every two years instead of annually. Based on this, the next monitoring study will be done in spring 2010. This has proven to be the most cost-effective approach and may continue.

Alternatively, if Caltrans assumes responsibility for monitoring the freeway system as required or if local jurisdictions assume responsibility for monitoring local roads, evaluations will be structured to allow a self-certification process using Caltrans or local reports of LOS. The CMA will determine how well areas meet LOS standards based on these reports at the time of the annual conformance findings. The CMA will ensure that the adopted standards are monitored in a consistent manner by all local jurisdictions and/or Caltrans.

Local governments will need to consider the effects their land use decisions may have on future LOS on the regional transportation system. Therefore, cities and counties may have to develop funding for

¹⁷ California Government Code Section 65089(b)(1)(A)

projects and programs that will improve LOS on the CMP-network. If local land use decisions make the LOS on the state highway system worse, cities and the county may be responsible for the necessary improvements.

To provide a basis for more definitive strategies for maintaining LOS standards in subareas of Alameda County, the CMA has completed a program of corridor studies in the following high-priority corridors:

- I-80
- San Pablo Avenue
- I-880
- I-238
- I-580/Altamont Pass
- I-680
- I-580 Corridor BART to Livermore
- I-680 Value Pricing
- North I-880 Safety and Operations Study
- San Pablo and I-880 SMART Corridor programs
- Tri-Valley Triangle Study
- Central County Freeway Study

LOS STANDARDS

Goals and Objectives

LOS indicates traffic growth trends using vehicular volumes, capacity, and measurement of average speed and delay. The objectives are to develop a consistent approach which is easy to use, non-duplicative and compatible with local government data and travel-demand models. The approach is outlined in Table 4.

Table 4—Approach to LOS

ISSUE	APPROACH
Interregional Trips	As defined by statute, "interregional travel means any trip that originates outside" Alameda County. A 'trip' means a one-direction vehicle movement. The origin of any trip is the starting point of that trip. In accordance with MTC guidelines, trips with no trip end in Alameda County (through trips) were not subtracted for monitoring reports.
Level of Service	The LOS standard is E, except where F was the LOS when originally measured, in which case the standard shall be F. The method of analysis is documented in "Establishing the Existing Level of Service for the Alameda County CMP-Designated Roadway System". The methods employed constitute a uniform methodology adopted by the CMA that is consistent with the 1985 Highway Capacity Manual (HCM) and have been approved by MTC. Methods described in Chapter 8 (Two-Lane Highways) and Chapter 11 (Urban and Suburban Arterials) of the HCM were the basis for establishing the level of service on the CMP system. LOS is assessed based on the average speed observed along a roadway segment (link speeds), or total volumes approaching an intersection (link volumes). These methods are not designed to replace the more detailed procedures that local agencies are likely to use for non-CMP purposes (such as local impact studies). Such procedures typically focus on an intersection's ability to handle individual turning movements.
Monitoring	The CMA will conduct LOS monitoring, although the cities, county or Caltrans may eventually assume responsibility for monitoring segments in their respective jurisdictions. State statute ¹⁸ requires Caltrans to monitor LOS on the freeway system, unless the CMA designates that responsibility to another entity. Monitoring will be conducted biennially, recognizing that other surveys could be done for development impact studies (e.g., intersection turning movement counts). The method of data collection is the floating car technique of recording travel times between checkpoints based on actual travel time during the peak period. Data from several runs in all non-high-occupancy vehicle (HOV) lanes are averaged for each roadway segment.

Facility Classifications

The HCM provides methods for determining LOS on several types of facilities. These facilities are grouped into "interrupted-flow" and "uninterrupted-flow" facilities. Interrupted-flow facilities include city streets and surface highways (like State Route 123/San Pablo Avenue) that are part of the state highway system. Freeways are uninterrupted-flow facilities. For purposes of LOS analysis, the CMPnetwork can be classified into three functional types of facilities: freeways; two-lane roadways; and urban/suburban arterials.

¹⁸ California Government Code Section 65089(b)(1)(A), Amended 1995.

Freeways

Freeways are uninterrupted-flow facilities, since traffic never stops (except during the most congested periods or when incidents occur). For the 1991 CMP, the CMA, in coordination with local jurisdictions, defined appropriate segments and performed the necessary floating car runs on the freeways to obtain travel speed data. This allowed the establishment of a baseline LOS for the system, including identification of segments operating at LOS F. It is anticipated that Caltrans may eventually monitor freeway system, as required by statute (Katz, Statutes of 1995).

Two-Lane Roadways

Two-lane roadways are uninterrupted-flow facilities. The criteria for including principal arterials in the CMP-network specify a minimum of four lanes; therefore, two-lane roadways are not included as principal arterials. However, two-lane state highways are included, since all state highways must be in the system. These two-lane roads constitute a fairly small portion of the CMP-network mileage., but a method for level-of-service analysis is suggested here. For two-lane roads without interruptions (signals or stop signs), Chapter 8 of the HCM is used, based on average travel speed.

Urban and Suburban Arterials

Urban and suburban arterials are multi-lane streets that have traffic signals spaced no more than two miles apart on average. Because the CMP legislation emphasizes systems-level planning, Chapter 11 of the HCM is used to estimate arterial LOS. Advantages include the need for relatively little input data, simple applied calculations and the results of explicitly determined LOS (A, B, C, etc.).

LOS Methodology

Urban and suburban arterials are characterized by platoon flows. Operational quality is controlled primarily by the efficiency of signal coordination and is affected by how individual signalized intersections operate along the arterial. LOS is primarily a function of travel speed along segments, and is calculated from field data. Beyond measuring existing LOS conditions (using actual counts or travel speed measurements), the CMA's approach is to be forward-looking. Using the Alameda countywide travel model, future LOS conditions on the CMP-network will be estimated by analyzing information about local land use decisions and taking into account local investments in transportation, which are proposed in the Capital Improvements Program of the CMP. Using the countywide model, it is possible to forecast average travel times and speeds for future traffic operations. The results would need to be checked for reasonableness under existing conditions before being used as a forecasting tool.

TRAFFIC MONITORING PROGRAM

The CMA currently conducts LOS monitoring on CMP system roadways. If the cities, county or Caltrans assume responsibility, monitoring could be accomplished through a self-certification process involving the local jurisdictions and/or Caltrans and the CMA.

Self-Certification Process

By June 15 of each year, a set of travel time runs are to be submitted to the CMA for the CMP-network. A city or the county, if it assumes responsibility, would submit the information, except for the freeways, within its jurisdictional limits. If Caltrans assumes responsibility for the freeways, it would similarly submit summary data to the CMA by June 15. Local jurisdictions or Caltrans will also be responsible for calculating LOS according to Table 5, which is based on Chapter 11 of the HCM. Local agencies or Caltrans will keep raw field data available for the CMA to examine for at least three years. Travel time runs will be completed by mid-May each year. ACTAC will provide technical guidance and assistance in reviewing methodology and interpreting LOS monitoring results.

Data Requirements

In addition to the basic geometric, signal timing, and other such "physical" information, the traffic monitoring program requires information about average travel speed, which is the basis for level-of-service measurement on all facility types (i.e., freeways, two-lane highways (uninterrupted) and urban/suburban arterials). For a given roadway segment, monitoring must be performed and reported separately for each travel direction. Travel speed studies normally are conducted using "floating" cars that drive at the posted speed, or if constrained by traffic conditions, at the average speed of traffic. Starting 2008, the Global Positioning System (GPS) is used to record travel data in "floating car" method.

Until 2004, LOS monitoring was conducted for all the CMP segments during the p.m. peak hours (4:00 p.m. to 6:00 p.m.) and for selected freeway CMP segments during the a.m. peak hours (7:00 a.m. to 9:00 a.m.). The CMA Board recommended that all CMP roadway segments be monitored during both peak periods starting 2006 LOS monitoring period. The a.m. peak monitoring will be for informational purposes only.

Acceptability of Data

A suggested approach to ensure acceptable monitoring is described in *Establishing the Existing Level of Service for the Alameda County CMP-designated Roadway System* (CMA, 1991). This document is based on the Institute of Transportation Engineer's *Manual of Traffic Engineering Studies* (Chapter 7, Test Car Method). A test car is driven six times in each direction on all CMP-network. This frequency may be adjusted later for roadway segments found to consistently operate at LOS A or B. More than six test car runs are performed on roadway segments operating at LOS E or F because a greater range or fluctuation in data typically occurs. Test car runs will be repeated biennially.

The following guidelines will be used to determine acceptability of data for use in the CMP:

- Test car runs must be made on a Tuesday, Wednesday and/or Thursday, because these days are most indicative of average weekday conditions.
- Test car runs on a particular segment must span a range of days and time of day. This means that test
 car runs should not be bunched on the same day of the week or taken on separate days at the same
 time.

LEVEL OF SERVICE STANDARDS

- Runs near holidays, when school is not in session or when roadway construction is under way, must be avoided.
- Consistent monitoring periods must be observed for each roadway segment. For example, a comparison between April 2002 and April 2003, is likely to be more valid than a comparison between January 2002 and August 2003.
- If special generators are located within a few miles of the monitoring location, it must be determined whether unusual or unwanted activity levels are occurring at the special generator. A call to a shopping center management company, for example, could be made to ascertain that the test day(s) was reasonably close to average, and that no retailers were holding major sales.

Table 5—Relationship between Average Travel Speed and LOS

ARTERIALS

Arterial Class	I	П	Ш
Range of Free Flow Speeds (mph)	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	40	33	27

Level of Service	Av	erage Travel Speed (mph)
A	≥ 35	<u>≥</u> 30	<u>≥</u> 25
В	≥ 28	<u>≥</u> 24	≥ 19
C	<u>≥</u> 22	≥ 1 8	≥ 13
D	≥ 17	≥ 14	<u>></u> 9
E	≥ 13	≥ 10	≥ 7
F	< 13	< 10	< 7

FREEWAYS

LOS	Average Travel Speed (mph)	Volume-To-Capacity Ratio	Maximum Traffic Volume (vehicles / hour / lane)
A	<u>≥</u> 60	0.35	700
В	≥ 55	0.58	1,000
C	≥ 49	0.75	1,500
D	<u>≥</u> 41	0.90	1,800
E	≥ 30	1.00	2,000
F	< 30	Variable	-

Source: Highway Capacity Manual, Transportation Research Board, 1985.

Range for LOS F for Freeway Sections: 19

- F30-Average Travel Speed < 30 mph
- F20-Average Travel Speed < 20 mph
- F10-Average Travel Speed < 10 mph

 $^{^{19}}$ Approved by Plans and Programs Committee of the ACCMA on June 14, 2004 to show degrees of LOS F on congested roadways.

Definition of Roadway Segments

For surface highways, ACTAC determined route segments for travel time analysis, with input from appropriate departments (traffic engineer, planning department, etc.) at the local jurisdiction. This determination used the following guidelines:

- Segments should be at least one mile and not more than five miles in length.
- Logical segment break-points include: jurisdictional boundaries; points where the basic number of travel lanes change; locations where land use changes occur (e.g., commercial area versus residential), points where the posted speed limit changes or where the number of adjacent driveways is significantly different.

Since the adoption of the CMP roadway segments in 1991, the intensity and location of congestion throughout the county has changed. Therefore, in 2007, ACTAC reviewed the CMP roadway segment lengths and the criteria for designating the CMP roadway segments to develop new segments that better reflect existing land use and travel patterns. It was found that from a field and operating perspective, the CMP roadway segmentation criteria were still appropriate and therefore it was recommended that no changes be made. However, many long segments were found to be showing better levels of service by averaging speed over the length of the segments. Splitting these segments using the approved criteria revealed congestion hot spots. To more accurately identify congested segments, the longer segments were split into shorter segments. Because this original check points were retained for this exercise, all new segments nest within the old segments. This is important so that trends can be evaluated over time. The complete list of CMP roadway segments including the new segments are shown in Appendix H. Many new segments are located on I-580 in the Tri-valley area. There are only four arterials that are further segmented. For the 2009 CMP Update, SR 84 in East County was segmented into shorter segments.

To date the CMA has performed all data collection (floating car runs) on the CMP-designated system of arterials and freeways. However, the CMA continues to work to ensure that the California Department of Transportation, Caltrans, will eventually assume responsibility for collecting all data necessary for determining levels of service on freeways. According to statute (Katz, Statutes of 1995), Caltrans "is responsible for data collection and analysis on state highways, unless the {CMA} designates that responsibility to another entity. The {CMA} may also assign data collection and analysis responsibilities to other owners and operators of facilities or services if the responsibilities are specified in its adopted program".

Identification of LOS F Roadway Segments

Between July and October, 1991, the CMA completed travel time studies to establish existing LOS on all segments of the CMP-network during the p.m. peak period. Travel time studies were conducted during the p.m. peak period on Tuesdays, Wednesdays, and Thursdays. Information gathered consisted of travel time runs on all CMP routes. A range of four to 10 travel time runs in each direction were done to estimate average travel speeds, in accordance with CMP requirements and Institute of Transportation Engineers recommendations, as specified in their *Manual of Traffic Engineering Studies*.

Travel time checkpoints for principal arterials were generally chosen at signalized intersections; for freeways, interchange ramp junctions were used. Further detail about segment LOS monitoring methodology and results are available by contacting the CMA.

During the 1992 monitoring cycle it was determined that freeway-to-freeway connectors had not been monitored as part of the 1991 baseline LOS determination. Monitoring of these segments was performed, together with the rest of the network, between August and September, 1992. Five freeway connector segments were operating at LOS F, and they were grandfathered as permitted by the statutes. The LOS freeway-to-freeway connections are shown in Table 6.

Tables 6 and 7 and Figure 8 identify the system segments (on freeways and principal arterials) found to operate at LOS F in 1991. According to the study results, a total of 15 freeway segments (excluding freeway to freeway connectors) and 15 arterial segments were operating at LOS F during the p.m. peak period in 1991. These segments, which operated at LOS F during 1991 (the first year of the CMP), are grandfathered from CMP requirements for preparing a deficiency plan.

Grandfathered Segments

The 30 segments (15 freeway and 15 arterial) grandfathered by statute in 1991 are not exempt from analysis and mitigation for purpose of satisfying the Land Use Analysis Program (Chapter 6), the California Environmental Quality Act (CEQA) and the federal National Environmental Protection Act (NEPA). The CMP focuses on existing congestion, therefore strategies and/or improvements to address grandfathered segments should be considered in corridor studies, investments in the *Countywide Transportation Plan* and the CMP Capital Improvement Program (CIP).

Infill Opportunity Zones

SB 1636 (Figueroa) signed by the Governor in 2002 established "infill opportunity zones" to encourage transit supportive development. The statute exempts infill opportunity zones from the requirements to maintain the LOS E. The city and/or county shall either include the streets and highways under an alternative areawide LOS or a multi-modal composite or personal LOS standard or approve a list of flexible LOS mitigation options.

Specific land uses are required in the Infill Opportunity Zone (see government code section 65088.1(g)). Infill opportunity zones must be designated by a city or the county and contain the following characteristics: zoned for new compact residential or mixed use development within 1/3 mile of an existing or future rail transit station, ferry terminal served by either a bus or rail transit service, an intersection of at least 2-major bus routes or within 300 feet of a bus rapid transit corridor in counties with population over 400,000.

The process to adopt the guidelines and strategies for implementing infill opportunity zones in Alameda County including clarifying agency roles and policy objectives were reviewed in 2007. As a result, it was determined that if a jurisdiction wishes to adopt an infill opportunity zone, they are requested to notify the

CMA first and work towards a mutually agreeable set of mitigation measures or alternative LOS standards.

Frequency of Monitoring

Since a fair number of roadway segments operate at LOS A, it would be a poor use of limited resources to recalculate these LOS every year. It is unlikely that a system segment will fall from LOS A to below E in just one year. To reduce calculation effort, traffic monitoring to comply with the CMP may be done only for segments operating at LOS C or worse, at the option of the local jurisdiction. The focus should be on analyzing problem areas. Analysis of transportation impacts of proposed local land use decisions will highlight segments, which may need to be monitored more closely. Thus, if a link is expected to be approaching LOS E or F, it will be monitored and its LOS analyzed more frequently than segments at better service levels.

COMPARISON WITH PREVIOUS RESULTS

The results of several years of LOS monitoring, as presented in Table 8, show that overall traffic conditions for long-distance trips on the CMP freeway network have generally remained stable or improved. Though not particularly strong, an overall trend or change can be interpreted from comparisons with the 1991 LOS data. There is some improvement in average traffic conditions (i.e., higher speeds) on these longer distance freeway trips over 1991 conditions. However, there are still congested points found along most of the routes. System capacity and operational enhancements account for improvements on some facilities.

COMPLIANCE AND CONFORMANCE

Government Code Section 65089.3(a) requires the CMA to biennially monitor conformance with the adopted CMP. Among the requirements, the CMA must find consistency with the LOS standards. If a roadway segment is not conforming to the LOS standards based on the biennial monitoring, the affected local jurisdiction will be notified, and may elect to remedy the LOS problem or prepare a deficiency plan (see Chapter 8). If after 90 days the local jurisdiction is still in non-conformance, the CMA is required to provide notice to the CTC and the State Controller. The notice includes the reasons for the finding and evidence that the CMA correctly followed procedures for making the determination.

The State Controller would then withhold the non-conforming jurisdiction's increment of subventions from the fuel tax made available by Proposition 111, and the jurisdiction will not be eligible to receive funding for projects through the federal STP and CMAQ Program. If within the 12-month period following the receipt of a notice of non-conformance, the CMA determines that the city or county is in conformance, the withheld Proposition 111 funds will be released to the CMA for projects of regional significance included in the CMP or a deficiency plan.

LOCAL GOVERNMENT RESPONSIBILITIES

At present, the CMA is contracting with a consultant to monitor all segments of the CMP roadway system. If a local government or Caltrans assumes responsibility for monitoring roadways included in the portion of the CMP system under its jurisdiction, it must biennially monitor the LOS on the designated system and report to the CMA by June 15 of that year relative to conformance with the adopted standards.

Table 6—LOS F Freeways for Alameda County CMP-Designated Roadway System

These segments, which operated at LOS F in 1991, the first year of the CMP, are grandfathered from CMP requirements for preparing a deficiency plan. However, being grandfathered does not exempt these roadways from analysis and mitigation for purposes of satisfying the CEQA or NEPA or as part of the Land Use Analysis Program.

	Roadway	Dir.	Limits	Jurisdiction	Average Speed (mph)
1	I-80	WB	From: University To: I-80/580 Split	Berkeley/Emeryville	16.6
2	I-80	WB	From: I-80/580 Split To: Bay Brg Toll Plaza	Oakland	29.7
3	I-80	EB	From: I-580/80 Split To: University	Emeryville/Berkeley	25.8
4	I-80	EB	From: University To: Central	Berkeley/Albany	25.8
5	SR-24	ЕВ	From: I-580 To:Fish Ranch Road	Oakland	28.5
6	I-580	SB	From: I-80/580 To: I-980/Hwy 24	Oakland	25.6
7	1-980	EB	From: I-880 To:SR-24/I-580	Oakland	28.5
8	I-238	EB	From: I-880 To: I-580	County/San Leandro	29.8
9	I-880	SB	From: Hegenberger To: Washington	San Leandro/Oakland	29.2
10	I-880	SB	From: Washington To: A Street	County/Hayward	24.3
11	I-880	NB	From: Tennyson To: SR-92 (Jackson)	Hayward	18.2
12	I-880	NB	From: SR-92 To: Lewelling	Hayward	23.2

	Roadway	Dir.	Limits	Jurisdiction	Average Speed (mph)
13	I-880	NB	From: Dixon Landing To: SR-262/Mission	Fremont	29.3
14	SR-92	WB	From: Clawiter To: Toll Gate	Hayward/County	27.1
15	SR-92	EB	From: Toll Gate To: I-880	Hayward/County	27.5

Note: Data is based on surveys taken during the afternoon peak period in September/October, 1992.

FREEWAY-TO -FREEWAY CONNECTORS

Ramp Connection	Jurisdiction	Length (miles)	Average Speed	Free Flow Speed
I-80 SB to I-580 EB*	Oakland	0.30	18.7	45.0
I-580 WB to I-80 NB*	Oakland	0.21	16.0	45.0
I-680 SB to I-580 EB	Pleasanton	0.67	16.3	35.0
SR-13 NB to SR-24 EB	Oakland	0.35	14.4	45.0
I-580 WB; SR-24 WB to I-80 NB	Oakland	0.69	22.1	45.0

Note: Data is based on surveys taken during the afternoon peak period in September/October, 1992.

^{*} LOS condition was first reported during the 1991 surveys.

Table 7—LOS F Arterial Segments Alameda County CMP-Designated Roadway System

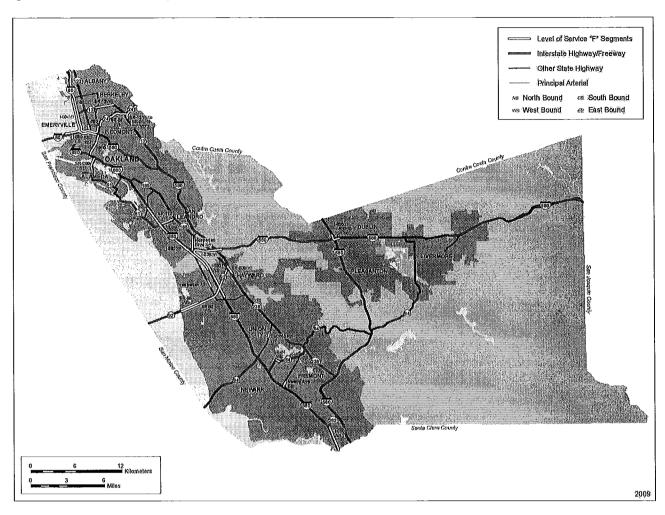
	ROADWAY	DIR	LIMITS	JURIS.	ARTERIAL CLASS	AVG SPEED (mph)
1	SR-13 (Ashby Ave.)	WB	From: Telegraph To: Shattuck	Berkeley	Ш	8.7
2	SR-13 (Ashby Ave.)	WB	From: Shattuck To: MLK, Jr. Way	Berkeley	Ш	9.3
3	SR-13 (Ashby Ave.)	ЕВ	From: College To: Domingo	Berkeley	Ш	6.8
4	SR-123 (San Pablo Ave.)	SB	From: Park Avenue To: 35th Street	Emeryville/ Oakland	П	9.4
5	SR-260	SB	From: 7th/Webster To: Atlantic	Oakland/ Alameda	I	12.3
6	SR-238 (Mission Blvd.)	NB	From: Sycamore To: Jackson	Hayward	П	8.8
7	SR-92 (Jackson St.)	EB	From: I-880 To: Winton	Hayward	П	8.6
8	SR-92 (Jackson St.)	EB	From: Winton Ave. To: Mission	Hayward	П	4.5
9	Hesperian Blvd.	NB	From: La Playa To: Winton	Hayward	Ι	11.1
10	Hesperian Blvd.	SB	From: 14th St. To: Fairmont	San Leandro	II	9.9
11	Hesperian Blvd.	SB	From: Spring lake To: Lewelling	Unincorp.	П	9.6
12	SR-112 (Davis St.)	WB	From: I-880 To: San Leandro Blvd.	San Leandro	П	5.2
13	Decoto Road	WB	From: Union Square To: Alvarado-Niles	Union City	П	8.6
14	SR-84 (Fremont Blvd.)	WB	From: Peralta Blvd To: Thornton Ave.	Fremont	П	7.2
15	Mowry Avenue	EB	From: I-880 To: Farwell Dr.	Fremont	II	9.6

Based on surveys during the afternoon peak period (4 to 6 p.m.) in July-August and October, Note: 1991.

Table 8—LOS Trends on the CMP-network (afternoon peak period)

				MILE	S PEF	нои	R							
ROAD	DIR	LIMITS	DIST (mi.)	'91 Aug	'91 Oct	'92	'94	'96	'98	'00	'02	'04	'06	'08
I-80	EB	Bay Bridge Toll Plaza to Contra Costa line	6		23	20	22	21	20	27	19	32	23	21
I-80	WB	Contra Costa line to Bay Bridge Toll Plaza	6	26	25	24	23	25	28	18	22	28	28	36
I-580	EB	I-238 to I-205	31	-	56	55	55	55	na	41	31	34	36	35
I-580	WB	I-205 to I-238	31	-	57	56	57	61	na	55	55	60	58	61
I-580	EB	I-80 to I-238	16	-	53	52	44	53	60	63	55	43	34	47
I-580	WB	I-238 to I-80	16	-	58	55	51	52	61	63	60	57	55	63
I-680	NB	Scott Creek Rd. to Alcosta Blvd.	21	-	58	57	57	52	51	58	51	42	53	43
I-680	SB	Alcosta Blvd. to Scott Creek Rd.	21	-	59	58	55	61	67	63	62	66	58	63
I-880	NB	Dixon Landing Rd. to I-980	30	42	45	44	43	46	38	48	38	49	45	43
I-880	SB	I-980 to Dixon Landing Rd.	30	47	43	40	38	46	50	49	41	37	37	48
SR-13	NB	Mountain Blvd to Hiller Dr.	6	51	54	50	49	48	53	51	50	35	39	51
SR-13	SB	Hiller Dr. to Mountain Blvd	6	57	56	59	53	47	59	59	55	54	57	49
SR-24	EB	I-580 to Fish Ranch Rd.	5	29	30	29	30	24	39	33	21	40	25	24
SR-24	WB	Fish Ranch Rd. to I-580	5	53	54	58	54	50	60	57	61	59	59	58

Figure 8—LOS F Roadways



Note: These segments, which operated at LOS F in 1991, the first year of the CMP, are grandfathered from CMP requirements for preparing a deficiency plan. However, being grandfathered does not exempt these roadways from analysis and mitigation for purposes of satisfying the CEQA or NEPA or as part of the Land Use Analysis Program.

ATTACHMENT B
DETAILS OF ROADWAY SEGMENTS AND RAMP SEGMENTS FROM THE 2008 LOS STUDY

			2008 LOS Monit	oring Study	Result	ts- Freev	ways for	S Monitoring Study Results- Freeways for PM Peak Period				
		Segmen	Segment Limits		Plan	Length	No of	Prior LOS "F"	2006 LOS	2006 LOS Results	2008 LOS	EL
	CMP Route	From	To	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	SOT	Speed	ros
62	I-680 - NB	Washington Blvd	Rt 238/Mission	Fre	3	0.89	9		New se	New segment	40.0	ш
63	63 I-680 NB		Vargas Rd	Unincorp	ဗ	0.82	9		New St	New segment	42.7	۵
94	64 I-680 NB	ĺ	Andrade Rd	Unincorp	က	2.64	9		New St	New segment	37.3	ш
65	65 I-680 NB		Calaveras	Unincorp	3	1.13	9		New se	New segment	46.8	D
99	66 I-680 NB	Calaveras	Rt.84/Vallecitos	Unincorp	က	0.30	9		New se	New segment	2.09	4
29	I-680 NB		Sunol Blvd	Plea - Uninc	4	3.45	9		New St	New segment	64.9	٧
99	68 I-680 NB	Sunol Blvd.	Bernal Ave	Plea - Uninc	4	1.52	9		New St	New segment	62.4	∢
69	69 I-680 NB		Stoneridge Dr	Plea	4	2.39	9		New St	New segment	63.0	4
70	70 I-680 NB	Stoneridge Dr	1-580	Plea	4	0.84	9		New St	New segment	64.0	A
71	71 I-680 - NB		Alcosta	Dub	4	1.83	9		65.5	Α	58.8	മ
72	72 I-680 - SB	Alcosta	1-580	Dub	4	1.84	9		62.4	4	67.2	4
73	I-680 SB	1-580	Stoneridge Dr	Plea	4	0.76	9		New se	New segment	59.1	മ
74	I-680 SB	Stoneridge Dr	Bernal	Plea	4	2.55	9		New se	New segment	62.6	∢
75	I-680 SB		Sunol Blvd	Unincorp	4	1.31	9		New st	New segment	59.3	ш
76	76 I-680 SB	Sunol Blvd.	SR 84	Unincorp	4	3.82	9		New St	New segment	66.4	A
77	77 I-680 SB	S Cany	Andrade Rd	Unincorp	3	1.32	9		New St	New segment	62.2	4
78	78 I-680 SB	Andrade Rd	Sheridon Rd	Unincorp	3	1.39	9		New St	New segment	8.09	∢
79	I-680 SB	_	Vargas Rd	Unincorp	3	0.81	9		New st	New segment	63.6	⋖
8			SR 238/Mission	Unincorp	3	1.08	ပ		New St	New segment	60.3	⋖
20	I-680 - SB	Rt 238/Mission	Washington Blvd	Fre	က	1.04	9		New St	New segment	62.7	∢
82	I-680 - SB	Washington Blvd	Durham Rd	Fre	3	1.52	9		New St	New segment	64.9	∢
83	83 I-680 - SB	Durham Rd	Rt 2262/Mission	Fre	3	1.67	9		New St	New segment	67.0	4
8	I-680 - SB	ioi	Scott Creek Rd	Fre	ဗ	2.19	ဖ		New St	New segment		A
85	85 I-880 - NB		SR 262/Mission	Fre	က	2.08	8	91-'92	40.3	ш	33.7	ш
87	87 I-880 - NB	sion	AutoMall Pkwy	Fre	3	2.44	8	96	New St	New segment	45.8	۵
88	1-880 - NB		Stevenson	Fre	က	1.54	œ	96	New St	New segment	41.1	۵
8	I-880 - NB	Stevenson	Decoto	Fre	3	4.04	8	86,-96	61.6	∢	49.6	ပ
8	1-880 - NB	Decota	Alvarado Blvd	Fre - Un Cty	3	1.17	8	02	New St	New segment	32.6	ш
9	I-880 - NB	Alcarado Blvd	Alvarado-Niles Blvd	Fre- Uni Cty	3	1.17	ω	02	New St	New segment	31.3	ш
92	92 I-880 - NB	Alv-Niles	Tennyson	Un Cty - Hay	3	2.65	80	00-02,06	24.5	(F30)	23.2	(F30)

			2008 LOS Monit	oring Study	Resul	ts- Free∿	ways fo	S Monitoring Study Results- Freeways for PM Peak Period	þ			
		Segme	Segment Limits		Plan	Length	No of	Prior LOS "F"	2006 LOS Results	S Results	2008 LOS Results	Results
	CMP Route	From	Το	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	SOT	Speed	ros
93	I-880 - NB	Tennyson	SR 92	Hay	2	1.14	∞	91-'92	36.6	ш	39.6	Ш
94	I-880 - NB	SR 92	A St	Нау	2	1.52	8	91-'92	46.6	۵	52.1	O
95	I-880 - NB	A St	I-238	Unincorp	2	1.82	8	94-'95	56.5	В	46.6	۵
96	I-880 - NB	I-880/1238 (split)	Marina Blvd	Oak -SL	2	2.66	8		New se	New segment	59.9	В
97	I-880 - NB	Marina Blvd	SR 112/Davis	Oak - SL	2	0.79	80		New se	New segment	49.7	ပ
86	98 I-880 - NB	SR 112/Davis	Hegenberger	Oak - SL	2	1.88	80		New se	New segment	58.6	В
66	I-880 - NB	Hegenberger	High/42nd	Oak	1	2.47	8		54.5	ပ	57.4	В
100	100 I-880 - NB	High/42nd	23rd (1st on)	Oak	-	1.06	8		New se	New segment	61.9	4
101	I-880 - NB	23RD (1ST on)	Jct 980 (off)	Oak	1	2.64	ø		New se	New segment	54.6	ပ
102	I-880 - NB	Jct 980 (off)	I-880/I-80 split	Oak	1	2.38	8		New se	New segment	6.09	Α
103	I-880 - NB	I-880/I 80 (split)	I-880/I-80 (merge)	Oak	-	1.40	œ		New se	New segment	31.3	Ш
104	I-880 - SB	I-880/I-80 split	I-880/I-80 merge	Oak	1	1.63	80		New se	New segment	61.1	A
105	105 I-880 - SB	I-880/I-80 merge	Jct 980	Oak	۲-	2.65	80		New se	New segment	80.8	Α
106	106 I-880 - SB	086-1	23rd	Oak	v -	2.79	8	90	22.6	(F30)	50.1	ပ
107	I-880 - SB	23rd St	High/42nd	Oak	1	1.35	∞		30.2	Ш	68.9	A
108	108 I-880 - SB	High/42nd	Hegenberger	Oak	1	2.27	∞	90	24.3	(F30)	38.5	ш
109	109 I-880 - SB	Hegenberger	SR 112/Davis	Oak - SL	۲.	1.69	∞	91-'92	New se	New segment	24.5	(F30)
110	I-880 - SB	SR 112/Davis	Marina Blvd	Oak - SL	1	0.87	œ	91-'92	New se	New segment	64.4	A
111	I-880 - SB	Marina Blvd	SR 238 WB (merge	Oak - SL	۲-	2.41	80	91-'92	New se	New segment	60.9	A
112	I-880 - SB	1-238	A St	SL-Uninc	7	2.03	ω	91-'92, '00-02	42.6	۵	56.2	В
113	I-880 - SB	A St	Rt 92	Hay	2	1.81	8		46.0	۵	42.4	۵
114	I-880 - SB	Rt 92	Tennyson	Hay	2	96.0	8	00	34.6	ш	40.2	ш
115	I-880 - SB	Tennyson	Alv-Niles	Hay - UC	2	2.49	∞		39.4	Ш	46.4	D
		Alv-Niles	Alvarado						New segment	egment	51.8	O
117	I-880 - SB	Alvarado	Decoto						New se	New segment	50.3	ပ
118	118 I-880 - SB	Decoto	Stevenson	Fre	3	4.07	ω		51.4	ပ	54.1	O
119	119 I-880 - SB	Stevenson	AutoMall Pkwy	Fre	2	1.26	∞		New se	New segment	61.0	4
120	120 I-880 - SB	AutoMall Pkwy	Rt 262/Mission	Fre	2	3.04	8		New se	New segment	44.2	۵
121	I-880 - SB	SR 262/Mission	Dix Landing(off)	Fre	3	1.27	∞	92,'06	28.8	(F30)	61.1	∢.
122	I-980 - WB	SR 24 @ 580	1-880	Oak	-	2.27	∞		41.5	۵	65.2	A
123	I-980 - EB	1-880	SR 24 @ 580	Oak	_	2.32	8	.91	53.4	ပ	53.4	ပ
124	124 SR 13 - NB	Mountain On	Carson/Redwood (1	Oak	1	1.20	4		New se	segment	85.3	4
125	125 SR 13 - NB	Carson/Redwood ((Joaquin Miller	Oak	-	1.09	4		New se	New segment	42.8	D
126	126 SR 13 - NB	Joa Miller/Linc	Moraga Ave	Oak	-	1.77	4			A	60.3	A
127	SR 13 - NB	Moraga Ave	Hiller (Sig)	Oak	7	1.57	4	90	20.1	(F30)	40.7	ш
128	SR 13 - SB	Hiller Sig	Moraga Ave	Oak	7-	1.66	4		57.1	В	56.0	В
129	129 SR 13 - SB	Moraga Ave	Joa Miller/Linc	Oak	-	2.04	4		49.1	ပ	70.3	4
130	130 SR 13 - SB	Joaq Miller/Lincoln Redwood	Redwood	Oak	-	1.34	4		New se	New segment	61.8	A
131	131 SR 13 - SB	Redwood	Jct I-580 (EB Merge	Oak	1	0.89	4		New se	New segment	21.9	(F30)
ĺ					٥	,						

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L			2008 LOS Monit	toring Study	Result	ts- Freev	ays fo	S Monitoring Study Results- Freeways for PM Peak Period	5			
		Segme	Segment Limits		Plan	Length	No of	Prior LOS "F"		2006 LOS Results	2008 LOS Results	Results
	CMP Route	From	To	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	TOS	Speed	ros
132	132 SR 24 - EB	Jct I-580 (on)	Broadway/SR 13	Oak	1	2.08	8	91-'97,'02,06	New segment	gment	25.6	(F30)
133	133 SR 24 - EB	Broadway/SR 13	Caldecott (enter)	Oak	1	1.41	8	91-'97,'02,06	New segment	gment	16.9	(F20)
134	134 SR 24 - EB	Caldecott (enter)	Fish Ranch Road	Oak	1	1.03	8	91-'97,'02,06	New segment	gment	37.1	ш
135	135 SR 24 - WB	Fisch Ranch Road Caldecott	Caldecott (exit)	Oak	1	0.99	8		New se	New segment	51.5	ပ
136	136 SR 24 - WB	Caldecott (exit)	Broadway	Oak	1	1.77	8		New segment	gment	67.4	∢
137	137 SR 24 - WB	Broadway	Jct I-580 (on)	Oak	1	2.19	8		New segment	gment	55.7	മ
138	138 SR 84 - EB	San M CL	Toll Plaza	Fremont	3	2.97	9		62.4	A	53.3	ပ
139	139 SR 84 - EB	Toll Plaza	Thornton	Fremont	3	0.27	9	90	28.3	(F30)	37.6	ш
140	140 SR 84 - EB	Thornton Ave/Pasc Newark Bl	Newark Blvd/Arden	Newark	3	1.23	9		New segment	gment	25.5	(F30)
141	141 SR 84 - EB	Newark Blvd/Arder I-880 NB (1-880 NB (off)	Newark	3	0.97	9		New segment	gment	15.8	(F20)
142	142 SR 84 - WB	I-880 NB (off)	Ardenwood/Newark		က	0.99	9		New segment	gment	40.5	ш
143	143 SR 84 - WB	Ardenwood/Newar Paseo Pad	Paseo Padre Pkwy		3	1.15	9		New segment	gment	60.3	∢
144	144 SR 84 - WB	Paseo Padre Pkw Toll Gate	Toll Gate		3	0.75	9		New segment	gment	50.9	ပ
145	145 SR 84 - WB	Toll Plaza	San M CL	Fremont	2	3.17	9		64.2	Α	65.5	A
146	146 SR 92 - EB	San M CL	Toll Plaza	Uninc - Hay	2	2.61	9	97-'02	64.8	Α	62.0	٧
147	147 SR 92 - EB	Toll Plaza	Clawiter	Uninc - Hay	2	1.76	9	91-'94, '96-'02	62.1	Α	41.1	Ω
148	148 SR 92 - EB	Clawiter	1-880	Нау	2	2.10	9	91-92,94-'95,97-'02,06	16.7	(F20)	10.5	(F20)
149	149 SR 92 - WB	I-880	Clawiter	Нау	2	2.01	9		54.4	ပ	57.1	В
150	150 SR 92 - WB	Clawiter	Toll Plaza	Uninc - Hay	2	1.87	9	91-'92	36.9	ш	48.8	۵
151	151 SR 92 - WB	Toll Plaza	San M CL	Uninc - Hay	2	2.61	9		63.1	A	64.4	A

			2008 LOS Monitoring	nitoring S	Study Results- Arterials for PM Peak Period	Its-Arteria	als for P	M Pea	Period				
		Segme	Segment Limits		Length	Arterial	Plan	No of	Prior LOS "F"	ହ	Results	ଥା	Results
#	CMP Route	From	To	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	ros	Speed	FOS
1	50th St - EB	Hesperian	1-580	SF	0.51	=	2	7		16.4	۵	14.2	۵
2	150th St - WB	1-580	Hesperian	SL	0.51	=	2	2		17.7	Q	11.0	ш
3/	A Street - EB	1-880	Western	Hay	1.08	=	2	7		21.3	ပ	20.9	၁
4	A Street - EB	Western	SR 238	Hay	0.53	III	2	2	•	9.2	D	7.3	ш
5	A Street - WB	SR 238	Western	Hay	0.53	Ξ	2	2		16.4	ပ	12.7	D
9	A Street - WB	Western	1-880	Hay	1.08	=	2	2		11.9	Ш	20.6	ပ
7 /	Atlantic - EB	Main	Webster	Ala	08.0	П	1	2		19.1	ပ	17.9	۵
8	8 Atlantic - WB	Webster	Main	Ala	0.80	=	-	7		24.5	В	24.3	Ф
<u>ი</u>	9 Hegenberger - EB*	SR 61	Edgewater	Oak	0.76					New Segment	ment	18.6	۵
10	10 Hegenberger - EB	Edgewater	Baldwin	Oak	0.73	1	1	3		21.4	Ω	23.7	ပ
17	Hegenberger - EB	Baldwin	E 14th	Oak	1.03	_	-	က		28.5	В	32.6	В
121	12 Hegenberger - WB	E 14th	Baldwin	Oak	1.03	-	1	3		33.6	В	41.9	A
13	13 Hegenberger - WB	Baldwin	Edgewater	Oak	0.73	-	-	က		20.1	Ω	21.0	Ω
14	14 Hegenberger - WB*	Edgewater	SR 61	Öak	0.76					New Segment	ment	26.5	ပ
151	15 Hesperian - NB	Tennyson	SH 92 - WB	Hay	0.47	_	2	က	90	11.6	•(F)•	8.6	• (F) •
161	16 Hesperian - NB	SH 92	La Playa	Hay	0.79	=	2	ო	92	New Segment	ment	25.6	В
171	Hesperian - NB	La Playa	W.Winton Ave.	Hay	0.44	=	2	က	92	New Segment	ment	5.2	• (F) •
18	Hesperian - NB	W.Winton Ave	A St	Нау	96.0	=	2	3	92	New Segment	ment	16.4	۵
6 T	Hesperian - NB	ASt	Hacienda	Unin	0.65	=	2	2		13.8	ш	17.0	۵
20 F	Hesperian - NB	Hacienda	Grant	Unin	0.65	=	2	7		16.8	۵	23.3	ပ
21	21 Hesperian - NB	Grant	Llewelling	Unin	0.28	=	2	2	00,04,06	8.8	•(F)•	8.6	•(F)
22 H	Hesperian - NB	Llewelling	Springlake	Unin	0.40	=	2	7		17.6	۵	23.9	ပ
23 H	Hesperian - NB	Springlake	Fairmont	SL	99.0	=	7	7		14.1	۵	12.1	ш
24	24 Hesperian - NB	Fairmont	14th	SL	0.32	=	2	7		25.1	В	15.9	
25	25 Hesperian - SB	14th	Fairmont	SF	0.31	=	2	2	'91, '95, '97	13.0	П	8.6	• (F)
26	26 Hesperian - SB	Fairmont	Springlake	SF	0.65	=	2	2	'91 - '92	20.1	ပ	17.9	۵
27	lesperian - SB	Springlake	Llewelling	Unin	0.40	=	2	2	00,	11.2	ш	11.9	ш
28	28 Hesperian - SB	Llewelling	Grant	Unin	0.28	=	2	2		19.2	ပ	18.5	O
29 H	Hesperian - SB		Hacienda	Unin	0.65	=	2	7		21.9	ပ	21.8	ပ
30	30 Hesperian - SB	Hacienda	A St	Unin	0.65	=	7	7		23.6		16.6	۵
31 F	Hesperian - SB	A St	W.Winton Ave.	Hay	96.0	=				New Seg	ment	21.4	S
32 H	Hesperian - SB	W.Winton Ave	La Playa	Hay	0.44	=				New Segment	ment	20.7	ပ
33 1	33 Hesperian - SB	La Playa	SH 92	Hay	0.79	Ш				New Segment	ment	21.9	ပ
34	Hesperian - SB	SH 92 - WB	Tennyson	Hay	0.47	_	2	3		13.6	Ш	9.7	(F)
												1	
35 1	35 Mowry - EB		Farwell	Fre	0.34	=	က	7	'91 - '92	13.0	ш	15.6	Ω
36 1	lowry - EB	Farwell	SH 84	Fre	2.63	=	က	2		25.2	В	16.6	Δ
37 N	Mowry - WB	SH 84	Farwell	Fre	2.63	=	က	2		23.5	O	14.7	۵
38	flowry - WB		088-1	Fre	0.34	=	က	2		25.2	В	22.1	O
39 F	39 Park/23rd - EB	Encinal	Santa Clara	Ala	0.23	=	-	2		8.8	Ш	11.9	Ω

		FOS	Monitoring Study Results- Arterials for PM Peak Period	tudy Resi	ults- Arteria	als for P	M Peak	Period				
	Segme	Segment Limits		Length	Arterial	Plan	No of	Prior LOS "F"	Ω	낊	2008 LOS	۳
# CMP Route	From	To	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	SOT	Speed	SOT
40 Park/23rd - EB	Santa Clara	Kennedy	Ala	99.0	Ш	~	2		15.0	ပ	15.6	ပ
41 Park/23rd - EB	Kennedy	E 11th	Ala - Oak	0.45	=	_	7		19.1	ပ	24.2	ω
42 Park/23rd - WB	E 11th	Kennedy	Ala - Oak	0.45	=	1	2		31.6	Α	32.4	Α
43 Park/23rd - WB	Kennedy	Santa Clara	Ala	0.66	=	1	2		17.8	ပ	13.1	ပ
44 Park/23rd - WB	Santa Clara	Encinal	Ala	0.23	==	1	2		11.7	Ω	11.4	۵
45 MLK Jr Way -NB	SH 24	Adeline	Oak	06.0	=	-	2		17.2	۵	16.8	٥
46 Adeline - NB	MLK Jr - South MLK Jr - North	MLK Jr - North	Berk	0.30	=	-	2	40	12.1	ш	13.8	ш
47 Adeline - NB	MLK Jr - North	Shattuck/Adeline	Berk	0.63	=	-	2		15.2	Ω	14.4	۵
48 Shattuck NB	Shattuck/Adelin Dwight		Berk	0.32	=	-	2		17.5	Δ	13.2	ш
49 Shattuck NB	Dwight	University	Berk	0.63	=	-	2		10.5	Δ	10.9	۵
50 Shattuck SB	University	Dwight	Berk	0.63	≡	-	2		12.2	Ω	12.6	۵
51 Shattuck SB	Dwight	Shattuck/Adeline	Berk	0.32	=	-	2		22.2	O	24.2	В
52 Adeline - SB	Shattuck/Adelin MLK Jr - North		Berk	0.63	=	-	2		13.9	ш	12.4	ш
53 Adeline - SB	MLK Jr - North MLK Jr - South	MLK Jr - South	Berk	0.30	=	-	2	95, '00	14.1	Δ	11.5	Ш
54 MLK Jr Way -SB	Adeline	SH 24	Oak	0.88	=	-	2		27.1	М	19.1	O
55 Tennyson - EB	Hesperian	I- 880	Hay	0.88		7	7	90	11.5	•(F)	14.2	ш
	I-880 NB	Rt 238	Hay	1.55	=	2	2		21.7	ပ	19.5	ပ
57 Tennyson - WB	Rt 238	1-880	Нау	1.63	=	2	2	٠	18.1	ပ	20.9	ပ
58 Tennyson - WB	1-880	Hesperian	Нау	0.85	_	2	2		20.8	۵	21.4	۵
	-		-	9		1	,		0	(000	ı
59 University - EB	II-80 SB	eth	Berk	0.40	=		7		18.9	ی	16.8	اد
	0th	San Pablo	Berk	0.31	=	_	7		18.3	ပ	16.7	۵
	San Pablo	Sacramento	Berk	0.56	=	-	7		17.5		18.0	O
University	Sacramento	ML King	Berk	0.48	=	-	2		17.4	۵	18.1	ပ
	ML King	Shattck Pl	Berk	0.30	=	_	2		10.9	۵	11.9	۵
	Shattck Pl	ML King	Berk	0.30	=	-	7		12.0	۵	11.8	Ω
65 University - WB	ML King	Sacramento	Berk	0.48	=	1	2		19.5	ပ	23.2	ပ
66 University - WB	Sacramento	San Pablo	Berk	0.56	=	τ-	2		14.3	O	13.7	ш
67 University - WB	San Pablo	6th	Berk	0.31	=	1	2	86,	13.2	ш	16.7	۵
68 University - WB	6th	I-80 SB	Berk	0.40	=	1	2		36.8	4	36.3	٨
69 SR 13 Ashby - WB	Hiller	Domingo	Oak - Berk	0.79	=	_	2		26.8	മ	22.0	ပ
70 SR 13 Ashby - WB	Domingo	College	Berk	0.50	=	1	1		17.7	ပ	17.1	ပ
71 SR 13 Ashby - WB	College	Telegraph	Berk	0.38	=	-	-		10.2	Δ	14.2	ပ
72 SR 13 Ashby - WB	Telegraph	Shattuck	Berk	0.38	≡	-	_	•	13.7	ပ	14.5	U
73 SR 13 Ashby - WB	Shattuck	ML King	Berk	0.24	Ξ	_	_	'91 - '92	10.1	Ω	8.1	ш
74 SR 13 Ashby - WB	ML King	San Pablo	Berk	0.87	=	-	1		14.1	ပ	16.3	ပ
75 SR 13 Ashby - WB	San Pablo	I-80 Ramps	Berk	0.64	=	-	2		25.5	М	27.2	В
76 SR 13 Ashby - EB	08-1	San Pablo	Berk	0.61	=	1	2		16.8	۵	16.9	۵
77 SR 13 Ashby - EB	San Pablo	ML King	Berk	0.87	Ш	1	1		15.7	ပ	21.1	മ
78 SR 13 Ashby - EB	ML King	Shattuck	Berk	0.24		-	-		8.6	ш	11.2	۵
79 SR 13 Ashby - EB	Shattuck	Telegraph	Berk	0.38	=	-	_		12.5	۵	16.3	O
80 SR 13 Ashby - EB	Telegraph	College	Berk	0.38	=	-	-		11.0	۵	13.1	ပ
81 SR 13 Ashby - EB	College	Domingo	Berk	0.50	=	-	_	91,00,04	12.3	۵	6.6	۵
82 SR 13 Ashby - EB	Domingo	Hiller	Berk - Oak	0.79	=	7-	2		21.4	0	23.2	ပ

Arterial 2008 PM

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		2008 LOS Monitoring	onitoring S	tudy Resu	Study Results- Arterials for	als for P	M Pea	PM Peak Period				
	Segme	Segment Limits	ļ	Length	Arterial	┪	No of	Prior LOS "F"	Ω	Results	Įχ	Results
# CMP Route	From	To	Juris	(miles)	Class	\neg	Lanes	(Years)	Speed	SOT	Speed	SOT
83 SR 61 - SB	Atlantic	Cent/Webster	Ala	0.55	Ш	1	2		12.4	Ω	14.3	ပ
84 SR 61 - SB	Cent/Webster	Sher/Encino	Ala	0.73	ll II	1	2		18.2	ပ	20.7	O
85 SR 61 - SB	Sher/Encino	Park	Ala	1.22	II	1	1		20.0	ပ	20.0	ပ
86 SR 61 - SB	Park	High/Otis	Ala	1.06	II	-	1		20.7	ပ	20.4	ပ
87 SR 61 (Doolittle) - SB*	High	Island Dr	Ala	0.41	ll II	1	2		18.1	ပ	18.7	ပ
88 SR 61 (Doolittle) - SB*	Island Dr	Harbor Bay Pkwy	Ala	0.50	_	1	2		35.6	Α	37.6	A
89 SR 61 - SB	Harbor Bay	Airport Dr	Oak	2.15	_	-	-		35.9	4	37.6	A
90 SR 61 (Doolittle) - SB	Airport	Davis	Oak - SL	0.95	_	-	2		30.3	ω	30.9	Ф
91 SR 61 (Doolittle) - NB	Davis	Airport	SL - Oak	0.95	-	2	2		32.9	В	29.3	В
92 SR 61 - NB	Airport Dr	Harbor Bay	Ala	2.15	_	-	-		35.8	4	58.8	4
93 SR 61 (Doolittle)-NB*	Harbor Bay	Island Dr	Ala	0.50	-	-	2		33.8	മ	23.8	ပ
94 SR 61 (Doolittle)-NB*	Island Dr	Hiah/Otis	Ala	0.41	=	-	2		19.2	U	27.2	В
95 SR 61 - NB	High/Otis	Park	Ala	1.06	=	-	-		19.9	O	19.4	O
96 SR 61 - NB	Park/Encinal	Sher/Cent	Ala	1.22	=	-	-		21.6	O	20.9	O
97 SR 61 - NB	Sher/Cent	Web/Cent	Ala	0.73	=	-	2		18.3	ပ	14.6	O
98 SR 61 - NB	Cent/Web	Atlantic	Ala	0.55	≡	_	2		14.5	ပ	29.8	A
99 SR 77 (42nd) - EB	I-880 NB	E 14th	Oak	0.32	_	1	2		28.0	В	24.3	ပ
100 SR 77 (42nd) - WB	E 14 th	I-880 NB	Oak	0:30	_	-	2		27.0	၁	37.9	А
101 Decoto - WB	SH 238/Mission Union Square	Union Square	nc	0.85	=	3	2		20.5	ပ	20.9	ပ
102 Decoto - WB	Union Square	Aiv-Niles Rd	2	0.25	=	ო		91-94,96,98,'00-04,06	8.7	• (F) •	10.5	ш
103 Decoto - WB	Alv-Niles Rd	Fremont CL	၁	99.0	II	3	2		19.9	ပ	18.9	ပ
104 Decoto - WB	Fremont CL	I-880 NB (off)	Fre	1.15	=	က	2		21.8	ပ	23.2	ပ
105 Decoto - EB	I-880 NB (off)	Union City CL	Fre	1.15	=	3	2		20.2	ပ	20.8	ပ
106 Decoto - EB	Union City CL	Alv-Niles Rd	၁	99.0	=	3	2		16.4	۵	20.1	ပ
107 Decoto - EB	Alv-Niles Rd	Union Square	2	0.25	=	က	2		14.3	Q	18.1	ပ
108 Decoto - EB	Union Square	SH 238/Mission	nc	0.85	=	က	2		22.2	ပ	17.5	۵
109 SR 84/Mowry (Fre)-WB	SH 238	Peralta	Fre	06:0	_	က			27.5	ပ	31.9	ш
110 SR 84/Peralta (Fre)-WB	Mowry	Fremont	Fre	1.73	_	က			27.8	ပ	27.5	ပ
111 SR 84/Fremont(Fre)-WB	Peralta	Thornton	Fre	0.33	=	က		91-92, 94, 02	15.1		10.9	ш
112 SR 84/Thornton(Fre)-WB	Fremont	I-880 SB	Fre	1.34	=	3			28.6	В	31.4	⋖
113 SR 84/Thornton (Fre)-EB	I-880 SB	Fremont	Fre	1.34	=	က	4		27.4	М	22.3	ပ
114 SR 84/Fremont (Fre)-EB	Thornton	Peralta	Fre	0.33	=	ო	4		13.8	Ш	11.6	Ш
115 SR 84/Peralta (Fre) - EB	Fremont	Mowry	Fre	1.73	_	ო	7		30.6	В	26.4	ပ
116 SB 84/Mowry (Fre) - FB	Peralfa	SH 238	ē Ē	0.90	_	က	4(2)	00,	14.5	Ш	26.9	ပ
117 1st Street - SB	I-580 Off	N Mines	Liv	0.61					20.7	Ω	21.5	Ω
118 1st Street - SB	N Mines	Inman	Liv	1.05	_				31.5	В	39.5	∢
119 1st Street - NB	Inman	N Mines	Liv	1.05	_				27.0	ပ	26.0	O
120 1st Street - NB	N Mines	1-580 Off	Liv	0.61	_				29.7	В	28.9	В

		FOS	nitoring S	tudy Res	Monitoring Study Results- Arterials for PM Peak Period	als for P	M Peak	Period	- 000	-	- 0000	<u>-</u>
	Segme	Segment Limits		Length	Arterial	Plan	No of	Prior LOS "F"	গ্ৰ	Results	2008 LOS	Ž١
# CMP Route	From	To	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	SOT	Speed	SOI
121 SR 84 - EB	SR 238/Mission Union City Lin	Union City Limit	Fre	1.30	R2-FFS 41.7				New Segment	ent	34.9	а
122 SR 84 - EB	Union City Limit Palamoras	Palamoras	Fre	06.0	R2-FFS 41.7	i			New Segment	ent	39.6	А
123 SR 84 - EB	Palamoras	Niles Cnyn Quarry	Fre	2.22	R2-FFS 41.7			,	New Segment	ent	42.0	٨
124 SR 84 - EB	Niles Cnyn Quarry	Sunol Rd	Fre	1.71	R2-FFS 41.7				New Segment	ent	45.9	A
125 SR 84 - EB	Sunol Rd	Plea-Sunol Rd	Fre	0.50	R2-FFS 41.7				New Segment	ent	5.2	•(F)•
126 SR 84 - EB	Ple-Sunol Rd	SR 84 (Off)/I-680	Unin					02-04,06	New Segment	ent	41.4	В
127 SR 84 - EB	SR 84 (Off)/I-68	Vallecitos Ent.	Unin	2.21				02-04,06	New Segment	ent	23.6	• (F) •
SR 84 - EB	SR 84 (Off)/I-6{Vallecitos Ln	Vallecitos Ln	Unin		New FFS needed	o o		02-04,06				
SR 84 - EB	Vallecitos Ln	Vallecitos Nuc.Cr	Unin		New FFS neede	က		02-04,06				
128 SR 84 - EB	Vallecitos Ent.	Vallecitos/Isabel	Unin	3.72	R2-FFS 49.1	3	2		37.9	၁	38.7	ပ
SR 84 - EB	Vallecitos Nuc (Vargas Rd	Vargas Rd	Unin		New FFS needed	ъ						
SR 84 - EB	Vargas Rd	Ruby Hill /Kaithof	Unin		New FFS needed	-O		•				
SR 84 - EB	Ruby Hill./Kaith	Ruby Hill./Kaith Isabel/Vallecitos	Unin			3	4					
129 SR 84 (Liv) - NB	Vallecitos/Isabe Vineyard	Vineyard	Liv	1.15	_	4			40.1	Α	40.7	Α
130 SR 84 (Liv) - NB	Vineyard	Stanley	Liv	1.53	_	4			45.6	٧	38.4	۷
SR 84 (Liv) - NB	Vineyard	Concannon	Liv		New FFS needed	ō						
SR 84 (Liv) - NB	on	Stanley	Liv		New FFS needed	ъ						
131 SR 84 (Liv) - NB		Airway/Kitty Hawk	Liv	1.55	_	4			31.8	В	36.0	4
SR 84 (Liv) - NB	Stanley	W. Jack London I	Liv		New FFS needed	g						
SR 84 (Liv) - NB	W. Jack Londol Airway/Kitty H.	Airway/Kitty Hawk	Liv		_	4						
132 SR 84 (Liv) - NB	Airway/Kitty	I-580	Liv	1.06	-	4			30.4	В	27.3	ပ
133 SR 84 (Liv) - SB	1-580	Airway/Kitty Hawl	Liv	1.06		4			30.7	В	26.8	ပ
134 SR 84 (Liv) - SB	Airway/Kitty	Stanley	Liv	1.55	1	4			41.5	4	46.2	∢
SR 84 (Liv) - SB	Airway/Kitty	W. Jack London I	Liv		New FFS needed	ď						_
SR 84 (Liv) - SB	W. Jack Londol Stanley	Stanley	Liv		1	9						
135 SR 84 (Liv) - SB	Stanley	Vineyard	Liv	1.53	_	4			48.0	⋖	40.8	∢
SR 84 (Liv) - SB	Stanley	Concannon	Liv		New FFS needed	9						
SR 84 (Liv) -	Concannon	Vineyard	Liv		New FFS needed	9						
136 SR 84 (Liv) - SB	Vineyard	Isabel/Vallecitos	Liv	1.15	_	4			43.2	4	46.1	۲
137 SR 84 - WB	Isabel/Vallecito Vallecitos Ent.	Vallecitos Ent.	Unin	3.72	R2-FFS 48.2	က	2		45.3	4	45.7	∢
SR 84 - WB	Isabel/Vallecito Ruby Hill /Kait	Ruby Hill /Kaithof	Unin		New FFS needed	q						
SR 84 - WB	Ruby Hill /Kaith Vargas Rd	Vargas Rd	Unin		New FFS needed	Q.						
SR 84 - WB	Vargas Rd	Vallecitos Nuc.Cr	Unin		New FFS needed	g						
138 SR 84 - WB	Vallecitos Ent.	Ple-Sunol Rd	Unin	2.62	R2-FFS 52.1	3	2		42.7	В	42.8	<u> </u>
SR 84 - WB	Vallecitos Nuc.		Unin		New FFS needs	က	7					
SR 84 - WB	Vallecitos Ln	SR 84/I-680 NB (Unin		New FFS needs	3	2					
SR 84 - WB	SR 84/I-680 NE Pie-Sunol Rd	Ple-Sunol Rd					!	-				
139 SR 84 - WB	Ple-Sunol Rd	Sunol Rd	Fre	0.52	R2-FFS-43.0				New Segment	ent	35.5	В

		FOS	onitoring S	tudy Res	Monitoring Study Results- Arterials for PM Peak Period	lls for P	M Peak	ر Period				
	Segme	Segment Limits		Length	Arterial	Plan	Jo oN	Prior LOS "F"	ကျွ	Results	2008 LOS	Results
# CMP Route	From	To	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	SOI	Speed	SOT
140 SR 84 - WB	Sunol Rd	Niles Canyon Qu	Fre	1.78	R2-FFS-43.0				New Segment	ment	49.8	A
141 SR 84 - WB	Niles Canyon OFremont City		Fre	0.92	R2-FFS-43.0				New Segment	ment	47.8	Α
142 SR 84 - WB	Fremont City Li	Fremont City Li Union City Limit	Fre	1.57	R2-FFS-43.0		-,		New Segment	ment	29.1	Ω
143 SR 84 - WB	Union City Limil SR 238	SR 238	Fre	1.84	R2-FFS-43.0				New Segment	ment	38.3	В
144 SR 92 - EB	1-880	Mission	Hay	1.59	1	2	3	'91 - '92	17.5	۵	16.2	٥
145 SR 92 - WB	Mission	I-880	Hay	1.59	=	2	3		23.8	ပ	29.0	В
146 SR 112 (Davis) - EB	Doolittle/Davis	088-1	SF	0.51	=	2	2		14.4	۵	13.8	ш
147 SR 112 (Davis) - EB	1-880	San Leandro	TS	1.01	П	2	2	191	22.7	ပ	19.3	ပ
148 SR 112 (Davis) - EB	San Leandro	E 14th	TS	0.28	III	2	2		11.6	Δ	13.7	ن
149 SR 112 (Davis) - WB	E 14th	San Leandro	SF	0.28	III	2	2		10.7	۵	14.5	ပ
150 SR 112 (Davis) - WB	San Leandro	I-880	SF	1.00	П	2	2		23.0	၁	26.3	В
151 SR 112 (Davis) - WB		Doolittle	SF	0.51	=	2	2		15.9	٥	21.8	ပ
152 SR 123 San Pablo - SB	Carlson	Washington	Alb	0.53	II	-	2		26.9	В	26.8	Ω
153 SR 123 San Pablo - SB	Washington	Marin	Alb	0.44	111	1	2		14.3	ပ	11.6	D
154 SR 123 San Pablo - SB		Gilman	Alb - Berk	0.47		1	2		15.5	۵	16.0	۵
155 SR 123 San Pablo - SB	Gilman	University	Berk	0.86	=	1	2		14.0	ш	19.5	ပ
156 SR 123 San Pablo - SB	University	Allston	Berk	0.20	Ш	1	2		9.3	Δ	16.1	ပ
157 SR 123 San Pablo - SB	Ailston	Dwight	Berk	9.0	=				New Seg	Segment	18.7	ပ
158 SR 123 San Pablo - SB	Dwight	Ashby	Berk	0.68	=				New Segment	ment	13.8	Ш
159 SR 123 San Pablo - SB	Ashby	Stanford	Berk	0.81		-	2		17.4	D	16.0	D
160 SR 123 San Pablo - SB	Stanford	53rd	Oak	0.27	-	_	2		21.5	ပ	25.5	В
161 SR 123 San Pablo - SB	53rd	Park	Emer	0.34	II	-	2		14.0	Ш	15.4	۵
162 SR 123 San Pablo - SB	Park	35th	Emer - Oak	0.45	=	τ-	2	191	11.6	ш	13.2	ш
163 SR 123 San Pablo - NB	35th		Oak - Emer	0.45	=	-	2		12.2	ш	15.4	۵
164 SR 123 San Pablo - NB	Park	53rd	Emer	0.34	=	- -	2		20.9	ပ	24.8	m
165 SR 123 San Pablo - NB	53rd	Stanford	Oak	0.27	=		2	05	14.4		20.5	O
166 SR 123 San Pablo - NB	Stanford	Ashby	Oak	0.81	I	1	2		13.3	ш	12.5	Ш
167 SR 123 San Pablo - NB		Dwight	Berk	0.68	=				New Seg	Segment	20:8	ပ
168 SR 123 San Pablo - NB	Dwight	Allston	Berk	0.4	II					Segment	23.6	ပ
169 SR 123 San Pablo - NB	Allston	University	Berk	0.20	=	-	2	90,00, 86,	5.7	• (F)	8.8	ш
170 SR 123 San Pablo - NB	University	Gilman	Berk	0.86	11	1	2		15.7	Ω	17.0	۵
171 SR 123 San Pablo - NB	c	Marin	Alb - Berk	0.47	=	_	2		16.4	Ω	10.3	ш
172 SR 123 San Pablo - NB		Washington	Alb	0.45	Ξ	-	2		11.5	۵	6.2	• (F)
173 SR 123 San Pablo - NB	Washington	Carlson	Alb	0.53	=	-	2		19.6	0	16.9	Ω

			2008 LOS Monitoring Study Results- Arterials for PM Peak Period	onitoring S	tudy Resi	ults- Arteri	als for F	M Peal	k Period				:
		Segm	Segment Limits		Length	Arterial	Plan	No of	Prior LOS "F"	2006 LOS	ŽĮ	গ্ৰ	Kesults
# CN	CMP Route	From	To	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	SOT	Speed	SOT
174 SR 185 (14th) - SB	th) - SB	42nd	46th St	Oak	0.26	=				New Segment	gment	17.6	
175 SR 185 (14th)	th) - SB	46th St	Seminary	Oak	0.79					New Segment	gment	23.2	ပ
176 SR 185 (14)	th) - SB	Seminary	73rd	Oak	08.0	=	7	2		13.5	ш	18.0	Ω
177 SR 185 (14)	th) - SB	73rd Ave	98th Ave	Oak	1.39	=	1	2		17.4	٥	17.5	0
178 SR 185 (14th) - SB	th) - SB	98th	Broadmoor	Oak	0.74		1	2		17.5	٥	19.8	ပ
179 SR 185 (14th) - SB	th) - SB	Broadmoor	Davis	SF	0.73	=	2	2		17.9	Ω	19.8	ပ
180 SR 185 (14th) - SB	th) - SB	Davis	San Leandro	SL	1.04	=	2	2		23.0	В	20.3	В
181 SR 185 (14th)	th) - SB	San L Blvd	Hesperian	SL	0.94		2	2		22.0	ပ	22.7	C
182 SR 185 (14th)	th) - SB	Hesperian	Bayfair	SL	0.46	=	2	2		14.5	D	15.9	۵
183 SR 185 (14th)	th) - SB	Bayfair	170th	Unin	1.24	=	ဗ	2		26.7	В	27.1	В
184 SR 185 (14th) - SB	th) - SB	170th	Llewelling	Unin	0.21	II	ε	2		29.1	В	28.5	В
185 SR 185 (14th) - SB	th) - SB	Llewelling	Sunset	Unin	1.02	11	3	2		22.6	ပ	20.2	၁
186 SR 185 Hayward - SB	ward - SB	Sunset	SR 92/238	Hay	0.84	Ш	2	2		16.4	ပ	15.8	ပ
187 SR 185 Hayward - NB	ward - NB	SR 92/238	Sunset	Нау	0.84	=	7	2		17.9	ပ	15.8	ပ
188 SR 185 (14th) - NB	th) - NB	Sunset	Llewelling	Unin	1.11	=	3	2		22.1	ပ	18.5	ပ
189 SR 185 (14th) - NB	th) - NB	Llewelling	170th	Unin	0.21	=	က	2		26.8	В	32.9	∢
190 SR 185 (14th) - NB	th) - NB	170th	Bayfair	Unin	1.24	=	3	2		22.9	ပ	18.7	ပ
191 SR 185 (14th)	th) - NB	Bayfair	Hesperian	SL	0.47	=	2	2		17.5	۵	19.8	ပ
192 SR 185 (14th)	th) - NB	Hesperian	San L Blvd	SL	0.94	=	2	2		22.5	ပ	24.9	В
193 SR 185 (14t	th) - NB	San Leandro	Davis	SL	1.02	=	7	2		16.4	ပ	17.5	ပ
194 SR 185 (14th) - NB	th) - NB	Davis	Broadmoor	SF	0.72		2	2		22.5	ပ	21.4	ပ
195 SR 185 (14th) - NB	th) - NB	Broadmoor	98th	Oak	0.74	=	-	2		14.4	۵	18.0	ပ
196 SR 185 (14th) - NB	th) - NB	98th Ave	73rd Ave	Oak	1.37	=	-	2		14.8	۵	17.1	۵
197 SR 185 (14th) - NB	th) - NB	73rd Ave	Seminary	Oak	0.60	=	-	2		11.2	ш	14.5	۵
198 SR 185 (14t	th) - NB	Seminary	46th St	Oak	0.79	=					Segment	22.0	ပ
199 SR 185 (14th) - NB	th) - NB	46th St	42nd	Oak	0.26	=				New Seg	Segment	7.3	•(F)
200 SR 238 (Foothill) - NB	othill) - NB	Jackson	enter	Hay	0.62	=	2	က		10.7		15.8	٥
201 SR 238 (Foothill) - NB	othill) - NB	City Center	Ì	Unin-Hay	0.73	=	က	က		16.4	۵	19.4	
202 SR 238 (For	othill) - NB	I-580 Ramp	I-580 Merge	Unin	0.71		3			63.5	4	46.1	4
203 SR 238 (Foothill) - SB	othill) - SB	1-580	Cstro V Blvd	Unin	98.0	-	3			49.4	⋖	43.0	4
204 SR 238 (Foothill) - SB	othill) - SB	Cstro V Blvd	City Center	Hay-Unin	1.03	=	2	ო		23.6	ပ	19.3	دا
205 SR 238 (Fo	othill) - SB	City Center	Jackson	Hay	0.62	≡	2	8		12.2		10.4	

			2008 LOS M	Monitoring Study Results- Arterials for PM Peak Period	tudy Resi	ults- Arteria	als for P	M Peak	Period				
		Segm	Segment Limits		Length	Arterial	Plan	No of	Prior LOS "F"	2006 LOS	Results	2008 LOS Results	Results
#	CMP Route	From	To	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	SOT	Speed	SOT
K	206 SR 238 (Mission) - NB	680 NB Rmp	Stevenson	Fre	2.46	1	3	2		39.5	А	37.7	A
×	207 SR 238 (Mission) - NB	Stevenson	Nursery	Fre	2.57	1	3	2		29.8	В	32.1	മ
K	208 SR 238 (Mission) - NB	Nursery	Tamarack	S C	2.10	1	3	2		29.2	В	28.1	В
K	209 SR 238 (Mission) - NB	Tamarack	Industrial	UC - Hay	1.96	_	3	2		29.4	В	29.0	В
2	210 SR 238 (Mission) - NB	Industrial	Sorenson	Hay	1.47	=	2	2		18.5	၁	23.4	ပ
2	211 SR 238 (Mission) - NB	Sorenson	Jackson	Hay	1.83	I	2	2		18.6	၁	16.0	D
2	212 SR 238 (Mission) - SB	Jackson	Sorenson	Hay	1.83	=	2	2	'91 - '92	20.0	ပ	13.3	ш
2	213 SR 238 (Mission) - SB	Sorenson	Industrial	Нау	1.47	=	2	2		24.3	В	25.9	В
2	214 SR 238 (Mission) - SB	Industrial	Tamarack	Hay - NC	1.96	_	2	7		29.2	ш	30.2	В
2	215 SR 238 (Mission) - SB	Tamarack	Nursery	2	2.07	_	ო	2		27.3	ပ	23.5	ပ
5	216 SR 238 (Mission) - SB	Nursery	Stevenson	Fre	2.57	_	က	2		31.5	ш	29.6	В
2	217 SR 238 (Mission) - SB	Stevenson	680 NB Rmp	Fre	2.46		က	2		35.6	А	24.6	ပ
7	218 SR 260 (Tubes) - NB	Atlantic	7th/Web	Oak	1.31	I	1	2		35.8	Α	29.8	Α
5	219 SR 260 (Tubes) - SB	7th/Web	Atlantic	Oak	1.31		1	2	'91	29.2	ш	29.0	4
2	220 SR 262 (Mission) - EB	I-880 NB	I-680 NB	Fre	1.33	_	က	2		19.4	Ω	19.2	Ω
2	221 SR 262 (Mission) - WB	I-680 NB	I-880 SB	Fre	1.11	1	3	2		29.2	В	35.6	∢
									-				
	Note - New Segments were adopted in the 2007 CMP by	e adopted in the		splitting longer CMP segments into short segments.	<i>I</i> IP segmen	its into short	segments						
	* - New CMP Segments added in the 2007 CMP since they met the Principal Arterial criteria for inclusion.	ided in the 2007	CMP since they m	et the Principa	al Arterial c	riteria for inc	lusion.						
											_		

ATTACHMENT C SAMPLE DATA ENTRY SHEET

	D M 1			2 1				
	Run Number	1	2	3	4	5	6	
	Date	2008-03-18	2008-03-18	2008-03-18	2008-04-08	2008-04-09	2008-04-09	
	Start Time							
	Driver	Peter	Peter	Peter	Peter	Peter	Peter	L
Checkpoint	Distance							
		-						
Hwy 238/Mission	0.00	3:59:31 PM	4:56:32 PM	5:45:42 PM	5:46:25 PM	4:16:51 PM	4:57:20 PM	
7th St	0.33	4:00:33 PM	4:57:27 PM	5:46:20 PM	5:47:33 PM	4:17:39 PM	4:58:13 PM	
Union Sq./ Myers	0.52	4:02:22 PM	4:59:26 PM	5:47:46 PM	5:48:52 PM	4:19:14 PM	4:59:21 PM	
Alvarado-Niles Rd	0.25	4:02:49 PM	5:00:59 PM	5:49:41 PM	5:50:03 PM	4:21:05 PM	5:00:59 PM	
Perry Rd	0.26	4:06:00 PM	5:02:07 PM	5:50:26 PM	5:50:45 PM	4:21:49 PM	5:02:07 PM	
Clover/Royal Ann Dr	0.21	4:06:22 PM	5:02:50 PM	5:50:48 PM	5:51:19 PM	4:22:42 PM	5:02:34 PM	
Fremont City Limit	0.19	4:06:36 PM	5:03:07 PM	5:51:03 PM	5:51:35 PM	4:22:59 PM	5:02:50 PM	
Paseo Padre Pkwy	0.12	4:06:51 PM	5:03:23 PM	5:51:24 PM	5:51:51 PM	4:23:28 PM	5:03:05 PM	
Fremont Blvd	0.54	4:08:40 PM	5:05:13 PM	5:52:29 PM	5:52:34 PM	4:24:53 PM	5:04:38 PM	
Ozark River Way	0.20	4:08:56 PM	5:06:12 PM	5:52:44 PM	5:52:47 PM	4:25:08 PM	5:04:53 PM	
Cabrillo Dr/Canal Way	0.20	4:09:23 PM	5:06:39 PM	5:53:02 PM	5:53:03 PM	4:25:28 PM	5:05:09 PM	·
I-880 NB (off)	0.09	4:09:46 PM	5:07:23 PM	5:53:44 PM	5:53:29 PM	4:25:50 PM	5:05:51 PM	
I-880 SB (off)	0.24	4:10:31 PM	5:08:04 PM	5:54:20 PM	5:53:55 PM	4:26:20 PM	5:06:33 PM	
Ardenwood/Newark	0.75	4:11:26 PM	5:09:03 PM	5:55:08 PM	5:54:44 PM	4:27:10 PM	5:07:20 PM	-
Paseo Padre Pkwy	1.15	4:12:35 PM	5:10:18 PM	5:56:12 PM	5:55:50 PM	4:28:19 PM	5:08:29 PM	
Toll Gate	0.75	4:13:29 PM	5:11:11 PM	5:57:03 PM	5:56:41 PM	4:29:14 PM	5:09:23 PM	
County Line	3.17	4:16:29 PM	5:14:05 PM	5:59:56 PM	5:59:34 PM	4:32:05 PM	5:12:17 PM	

	Run Number	1	2	3	4	5	6	10	Average
	Date								
	Start Time								
	Driver	0	0	0	0	0	0		
Checkpoint	Distance								
Hwy 238/Mission	0.00								
7th St	0.33	00:01:02	00:00:55	00:00:38	00:01:08	00:00:48	00:00:53		00:00:54
Union Sq./ Myers	0.52	00:01:49	00:01:59	00:01:26	00:01:19	00:01:35	00:01:08		00:01:33
Alvarado-Niles Rd	0.25	00:00:27	00:01:33	00:01:55	00:01:11	00:01:51	00:01:38		00:01:26
Perry Rd	0.26	00:03:11	00:01:08	00:00:45	00:00:42	00:00:44	00:01:08		00:01:16
Clover/Royal Ann Dr	0.21	00:00:22	00:00:43	00:00:22	00:00:34	00:00:53	00:00:27		00:00:33
Fremont City Limit	0.19	00:00:14	00:00:17	00:00:15	00:00:16	00:00:17	00:00:16		00:00:16
Paseo Padre Pkwy	0.12	00:00:15	00:00:16	00:00:21	00:00:16	00:00:29	00:00:15	•	00:00:19
Fremont Blvd	0.54	00:01:49	00:01:50	00:01:05	00:00:43	00:01:25	00:01:33		00:01:24
Ozark River Way	0.20	00:00:16	00:00:59	00:00:15	00:00:13	00:00:15	00:00:15		00:00:22
Cabrillo Dr/Canal Way	0.20	00:00:27	00:00:27	00:00:18	00:00:16	00:00:20	00:00:16		00:00:21
I-880 NB (off)	0.09	00:00:23	00:00:44	00:00:42	00:00:26	00:00:22	00:00:42		00:00:33
I-880 SB (off)	0.24	00:00:45	00:00:41	00:00:36	00:00:26	00:00:30	00:00:42		00:00:37
Ardenwood/Newark	0.75	00:00:55	00:00:59	00:00:48	00:00:49	00:00:50	00:00:47		00:00:51
Paseo Padre Pkwy	1.15	00:01:09	00:01:15	00:01:04	00:01:06	00:01:09	00:01:09		00:01:09
Toll Gate	0.75	00:00:54	00:00:53	00:00:51	00:00:51	00:00:55	00:00:54		00:00:53
County Line	3.17	00:03:00	00:02:54	00:02:53	00:02:53	00:02:51	00:02:54		00:02:54

	Run Number Date	1	2	3	4	5	6	10	Average	Standard Deviation
	Start Time									
	Driver	0	Ö	0	0	0	0			
Checkpoint	Distance									
II 220/8 4::	0.00					_	-			
Hwy 238/Mission	1	10.0	- 01.6	21.2	10.5	24.0	22.4	_		
7th St	0.33	19.2	21.6	31.3	17.5	24.8	22.4		22.8	4.9
Union Sq./ Myers	0.52	17.2	15.7	21.8	23.7	19.7	27.5		20.9	4.3
Alvarado-Niles Rd	0.25	33.3	9.7	7.8	12.7	8.1	9.2		13.5	
Perry Rd	0.26	4.9	13.8	20.8	22.3	21.3	13.8		16.1	6.7
Clover/Royal Ann Dr	0.21	34.4	17.6	34.4	22.2	14.3	28.0		25.1	8.5
Fremont City Limit	0.19	48.9	40.2	45.6	42.8	40.2	42.8		43.4	3.3
Paseo Padre Pkwy	0.12	28.8	27.0	20.6	27.0	14.9	28.8		24.5	5.6
Fremont Blvd	0.54	17.8	17.7	29.9	45.2	22.9	20.9		25.7	10.5
Ozark River Way	0,20	45.0	12.2	48.0	55.4	48.0	48.0		42.8	15.4
Cabrillo Dr/Canal Way	0.20	26.7	26.7	40.0	45.0	36.0	45.0		36,6	8.4
I-880 NB (off)	0.09	14.1	7.4	7,7	12.5	14.7	7.7		10.7	3.5
I-880 SB (off)	0.24	19.2	21.1	24.0	33,2	28.8	20.6		24.5	
Ardenwood/Newark	0.75	49.1	45.8	56.2	55.1	54.0	57.4		52.9	
Paseo Padre Pkwy	1.15	60.0	55,2	64.7	62.7	60.0	60.0		60.4	3.2
Toll Gate	0.75	50.0	50.9	52,9	52.9	49.1	50.0		51.0	1.6
County Line	3.17	63.4	65.6	66.0	66.0	66.7	65.6		65.5	1.1

Checkpoint	Total Distance	Jurisdiction	Number of Runs	Average Elapsed Time	Average Speed	Arterial Class	Level of Service	Segment Number	Segment Distance	Segment Time
Hwy 238/Mission	-	UC	6							
7th St		UC	6			2		1	0.33	00:00:54
Union Sq./ Myers	0.85	UC	6	00:02:27	20.86	2	С	1	0.85	00:02:27
Alvarado-Niles Rd	0.25	UC	6	00:01:26	10.49	2	Е	2	0.25	00:01:26
Perry Rd		UC	6	_		2		3	0.26	00:01:16
Clover/Royal Ann Dr		UC	6			2		3	0.47	00:01:50
Fremont City Limit	0.66	UC	6	00:02:06	18.91	2	С	3	0.66	00:02:06
Paseo Padre Pkwy		UC	6			2		4	0.12	00:00:19
Fremont Blvd		UC	6			2		4	0,66	00:01:43
Ozark River Way		Fre	6			2		4	0,86	00:02:05
Cabrillo Dr/Canal Way		Fre	6			2		4	1.06	00:02:26
I-880 NB (off)	1.15	Fre	6	00:02:59	23.15	2	С	4	1.15	00:02:59
I-880 SB (off)			6					5a	0.24	00:00:37
Ardenwood/Newark	0.99		6	00:01:28	40.50		E	5a	0.99	00:01:28
Paseo Padre Pkwy	1.15		6	00:01:09	60.29		Α	5ե	1.15	00:01:09
Toll Gate	0.75		6	00:00;53	50,94		С	5e	0.75	00:00:53
County Line	3.17		6	00:02:54	65.52		Α	5	3.17	00:02:54

ATTACHMENT DORIGIN-DESTINATION PAIRS

		Origin - De	estinatio	on Pairs		
O-D Pair	Origin	Destination	Mode	Driving Distance (miles)	Survey Time	·
OD1	Hayward	Newark	Auto	11.20	P.M. Peak	·
			Transit		,	
OD2	Emeryville	Berkeley	Auto	4.80	P.M. Peak	
			Transit			
			Bike		,	
OD3	Hayward	Livermore	Auto	34.50	P.M. Peak	
			Transit			, 1
OD4	. Oakland	San Leandro	Auto	10.80	P.M. Peak	1
	,		Transit			****************************
OD5	Fremont	Pleasanton	Auto	18.00	P.M. Peak	<u> </u>
	1		Transit			1
OD6	Fremont	San Jose	HOV	14.80	A.M. Peak	
						to the control of the
OD7	Fremont	San Jose	Auto	14.80	A.M. Peak	
			Transit			
OD8	Oakland	Pleasanton	Auto	26.60	P.M. Peak	
			Transit			
OD9	Fremont	Alameda	Auto	25.20	P.M. Peak	
			Transit			
OD10	Alameda	Oakland	Auto	6.80	P.M. Peak	<u> </u>
			Transit			

ATTACHMENT E SAMPLE WORK SCHEDULE

ALAMEDA COUNTY CMP

ALAMEDA COUNTY CMA

2010 LOS Monitoring Study
Sample Schedule of Travel Time Runs (shown for P.M. Peak Period only)

					j	Schedule					COMPL		
Index Iumber	State Route	Street Name	Between	And	Survey	Week	Run	Run	Run	Run	Run	Run	Run 7
uilinei	Route	Street Maine		And	Directions	Starting		2	3	4	_ 5_	6	()
м ы	EΔK PE	RIOD (4:00 - 6:00 P.M.	1										
		ND ARTERIAL STREE											
	17 10 A	VO ANTENIAL OTNEL	73				•						
1	SR 24	FREEWAY	1-580	Fish Ranch Road	Both	4/4	4/6	4/6	4/14	4/14	5/6	5/6	
2		FREEWAY	1-580	Hiller	Both	-0.7	1,70	-110	77.1-7	-17,1-1	. 0,0	0,0	
3		FREEWAY	Macarthur/Estudillo	I-80 Junction	Both								
					1								
4	1-80	FREEWAY	San Francisco County Line	Central Avenue	Both								
					<u>i</u>								
5	SR 123	San Pablo Avenue	35th Street	Carlson Blvd.	Both					L			
6		Martin Luther King	SR 24 Ramps	Adeline Street	Both				l				
		Adeline Street	Martin Luther King	Shattuck Avenue	Both				1	Ì			
		Shattuck Avenue	Adeline Street	University Avenue	Both		ŀ						
,	1.500	University Avenue	Shattuck Avenue	I-80 Southbound Ramps	Both								
7 B	I-580 SR 13	FREEWAY	I-80 Junction	Central Avenue	Both		<u> </u>		-				1000
0	SR 13	Tunnel Road Ashby Avenue	Hiller Road Domingo Avenue	Domingo Avenue I-80 Ramps	Both Both								
-	1-980	FREEWAY	I-880 Junction	I-580	Both		-		-				
, 0	SR 61	Doolittle Drive	Harbor Bay Pkwy.	High Street	Both		├						
•	SR 61	Otis Drive	High Street	Park Street	Both		l						
	SR 61	Park Street	Otis Drive	Encinal Avenue	Both								3800
	SR 61	Encinal Avenue	Park Street	Central/Sherman	Both								
	SR 61	Central Avenue	Sherman Street	Webster Street	Both								
	SR 61	Webster Street	Central Avenue	Atlantic Avenue	Both								
1		Davis Street	East 14th Street	Doolittle Drive	Both								
	SR 61	Doolittle Drive	Davis Street	Harbor Bay Parkway	Both		L_	١		1			
2		Webster Street	7th Street (Oakland)	Atlantic Avenue (Alameda)	Both								
		Atlantic Avenue	Webster Street	Main Street	Both		L_		L_	L_			
3		Hegenberger Road	East 14th Street	Edgewater Drive	Both					l			
	I-880	FREEWAY	Hegenberger Road	I-980 Junction	Both						L		
4	SR 185	East 14th Street	98th Avenue	42nd Avenue	Both								
	SR 77	42nd Avenue	East 14th Street	I-880 Junction	Both		1						
		23rd Avenue	East 11th Street	Kennedy Street	Both		l		Ì				
		Park Street	Kennedy Street	Encinal Avenue (Alameda)	Both		ļ		ļ				
5	I-680	FREEWAY	SR 84/Vallecitos Road	Alcosta Boulevard	Both					ļ			
	1 000	EDEEMAY	0	00 0404-1111 5 .	lp.,,				1	1			
6	I-680	FREEWAY	Scott Creek Road	SR 84/Vailecitos Road	Both		 		-	<u> </u>			
7	SR 238	Mission Boulevard	I-680	Nursery Road	Both		 		├ ─	 			
8	1-880	FREEWAY	Tennyson Road	Hegenberger Road	Both		ŀ	l	1				
9	I-880	FREEWAY	Stevenson Boulevard	Tennyson Road	Both		 		 	 			
0	1-880	FREEWAY	Dixon Landing Road	Stevenson Boulevard	Both		l		 		<u> </u>		
1		Mission Boulevard	I-880 Junction	I-680 Northbound Ramps	Both		╟		 				
•	CIVEOL	Milocion Bodiordia	1 GGG GGTIGHGTT	1 000 Horaiboaria Harrips	Dour		╟──		 ─	 			
22	1-580	FREEWAY	SR 238 Junction	1-680	Both								
	l								1				
23	1-580	FREEWAY	I-680	SR 84/First Street	Both		1						
	1-580	FREEWAY											
24 25	SR 84	Holmes Street	SR 84/First Street Concannon Blvd.	San Joaquin County Line Murietta Blvd	Both				ļ	 			
3	SK 04	nomies Street	Concannon Bivd.	Mulletta Bivd.	Both		Ħ		1	ĺ			
	SR 84	First Street	Murietta Blvd.	1-580	Both			l					
26	SR 84	Vallecitos Road	Vallecitos Nuclear Center	Holmes Street	Both		 		1				
-	SR 84	Holmes Street	Vallecitos Road	Concannon Blyd,	Both	1							
7	SR 84	Vallecitos Road	Pleasanton-Sunol Road	Vallecitos Nuclear Center	Both		1		t		<u> </u>		
8	SR 84	Niles Canyon Road	Mission Boulevard	Pleasanton-Sunol Road	Both		l		†				
9	1	Hesperian Boulevard	Springlake Drive	East 14th Street	Both		1	l		· · · · ·			1234
	SR 185	East 14th Street	Hesperian Boulevard	98th Avenue	Both	1							
0		Mission Boulevard	Jackson Street	170th Avenue	Both	i	1		1				
		East 14th Street	170th Avenue	Hesperian Boulevard	Both	1						l	
		150th Avenue	East 14th Street	1-580	Both	<u></u>			L	L		L	4.0
	1				1			ĺ					
1	SR 238	Foothill Boulevard	Mission Boulevard	I-580 Junction	Both	1	1		İ	j		ł	
	1-580	FREEWAY	SR 238 Junction	Macarthur/Estudillo	Both								
2	I-238	FREEWAY	I-580	I-880 North Junction	Both								
3	 	Hesperian Boulevard	Tennyson Road	Springlake Drive	Both		<u> </u>						
		l. a		L	l	1				1		l	
4	05.5	A Street	1-880	Foothill Boulevard	Both	 	 -		—	 		L	
5	SR 92	San Mateo Bridge	San Mateo County Line	Toll Plaza	Both	1				1			
	SR 92	FREEWAY	Toll Plaza	(-880	Both					1			
-	SR 92	Jackson Street	I-880	Mission Boulevard	Both					 		-	
6	SR 84	Dumbarton Bridge	San Mateo County Line Toll Plaza	Toll Plaza	Both	1				1			
7	SR 84	FREEWAY	Hesperian Boulevard	i-880	Both		 		ļ		_	\vdash	
8	SR 238	Tennyson Road Mission Boulevard		Mission Boulevard Jackson Street	Both	-	-	 	-	-	 	 	150.00
0	OK 238	IVIISSION DOUIEVAID	Nursery Road	Jackson Street	Both	-	1	 	-	 		\vdash	
39	1	Decoto Road	1-880	Mission Boulevard	Both	Ī		l	1			1	
	SR 84	Thornton Avenue	I-880	Fremont Boulevard	Both		-		+	 	+	 	
เก		Fremont Boulevard	Thornton Avenue	Peralta Boulevard	Both	1				1			
10		I HIGH POUIDYOIG		. Statta Dodiołaja		1	II	ł	1	1	1	l	1
10	SR 84 SR 84	Peralta Boulevard	Fremont Boulevard	Mowry Avenue	Roth		l	}	1	1		l	33,38.82
10	SR 84	Peralta Boulevard Mowry Avenue	Fremont Boulevard Peralta Boulevard	Mowry Avenue Mission Boulevard	Both Both								
10		Peralta Boulevard Mowry Avenue Mowry Avenue	Fremont Boulevard Peralta Boulevard I-880	Mowry Avenue Mission Boulevard Peralta Boulevard	Both Both Both								

ALAMEDA COUNTY CMP

ALAMEDA COUNTY CMA

2010 LOS Monitoring Study
Sample Schedule of Travel Time Runs (shown for P.M. Peak Period only)

						Schedule	DATE OF RUNS COMPLETED						
Index	State			į	Survey	Week	Run	Run	Run	Run	Run	Run	Run Run
Number	Route	Street Name	Between	And	Directions	Starting	1	2	3	4	5	6	7 8
PM PE	AK PER	IOD (4:00 - 6:00 P.M.)					ļ						
14		PECIAL SEGMENTS											36.
1	,,,,,,	" EON IE OEOMENTO				1							
48	1-80	I-80/I-580 Interchange	I-80 Southbound	I-580 Eastbound		5/2							
49	1-580	I-80/I-580 Interchange	I-580 Westbound	I-80 Northbound			l	ĺ					
50	SR 24	I-580/SR 24 Interchange	SR 24 On	I-580 Off		5/2							
51	I-580	I-580/SR 24 Interchange	I-580 Westbound	SR 24 Eastbound	Ì		i						
52	SR 24	Ī	SR 24 Westbound	I-580 Eastbound									3.4 9.1
53	SR 13	SR 13/SR 24 Interchange	SR 13 Northbound	SR 24 Eastbound		4/4							1000
54	SR 24		SR 24 Westbound	SR 13 Southbound									
55	I-880	I-238/I-880 Interchange	1-880 Southbound	I-238 Eastbound		4/4							
56	1-238	_	I-238 Westbound	I-880 Northbound					l				
57	1-880		I-880 Northbound	I-238 Eastbound	[ļ	1				
58	1-238		I-238 Westbound	I-880 Southbound	:			<u> </u>	l				3 6
59	1-580	I-580/I-238 Interchange	I-580 Southbound	I-238 Eastbound		5/2							1900
60	1-238		I-238 Westbound	I-580 Northbound		L		L	L	L			
61	1-580	I-580/I-680 Interchange	I-580 Eastbound	1-680 Northbound		5/2			1				las claeta
62	I-580		I-580 Eastbound	I-680 Southbound									200
63	1-680		I-680 Northbound	!-580 Eastbound									
64	I-680		I-680 Northbound	I-580 Westbound									
65	I-580		I-580 Westbound	1-680 Northbound									
66	I-580		I-580 Westbound	I-680 Southbound						l		l	
67	1-680	i e	I-680 Southbound	I-580 Eastbound			ll .			l		l	
68	I-680		I-680 Southbound	I-580 Westbound					1				
69	I-880	Alameda Tube Interchange	I-880 Southbound	SR 260 Tube Westbound		4/4			1				7.5
70	I-880		SR 260 Tube Eastbound	I-880 Northbound		1	JL	1		<u> </u>		L .	

ATTACHMENT FACCMA SAMPLE CONTRACT

ATTACHMENT GGENERAL INFORMATION FORM

(To be completed by the Consultant and placed at the front of your RFP)

Legal Name of Firm		Date	2	
Street Address		Tele	phone Number	
City/State/Zip		Firn	n's Fax Number	
List of Certification ACCMA SBE	ACCMA LBE	DBE 🗌	UDBE 🗌	None
Type of Organization (Corporation, Sole Proj	prietorship, Partnership,	etc.)		
Business License (doc	umented)	Γaxpayer ID Numb	er (Federal)	
Name and Title of Pro	ject Manager			
Name, Title, and Phone	Number of Person Proje	ect Correspondence	should be direc	ted to:
Sub Consultant Informa	ution_			
Firm Name(s)	Address	Contact Name/I	Phone Number	<u>Email</u>
List of Certification ACCMA SBE	ACCMA LBE 🗌	DBE 🗌	UDBE 🗌	None [